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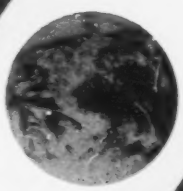
Knowledge and Use of Contraception in Twenty Developing Countries

By Maria Mamlouk



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Summary of Findings

This report examines the extent of knowledge and use of contraceptives in 20 developing countries. The data reviewed provide evidence of the rapidity with which knowledge and use of modern contraceptives have spread since the 1960s. On the basis of the rapid rise in knowledge and use of contraception in recent years, it can be anticipated that use levels should continue to increase in the years ahead.

In brief, the data analyzed in this report indicate that:

- In 19 of the 20 countries, three-quarters or more of the ever-married women know about contraception. (The exception being Nepal.) Knowledge of modern contraceptive methods (i.e., the pill, condom, IUD, injection, diaphragm, jelly, foam, tablet, tampon, sponge, and cream), especially the pill, is more common than knowledge of traditional methods (i.e., abstinence, rhythm, withdrawal, douche, and folk methods).
- Modern methods are more frequently used than traditional methods among current users. The three methods most commonly used, in order of popularity, are the pill, the IUD, and sterilization.
- There exists a curvilinear relationship between the extent of current use and age of the women: the percentage of current users is lower among younger and older women and reaches its highest level in the mid-range of the reproductive years.
- A strong, but not always consistent, relationship exists between parity and contraceptive use. In general, use of contraception tends to increase with number of living children.
- There exists a positive linear relationship between levels of educational attainment and contraceptive use. Similar relationships are also found between women's paid employment and contraceptive use, and between urban residence and contraceptive use.

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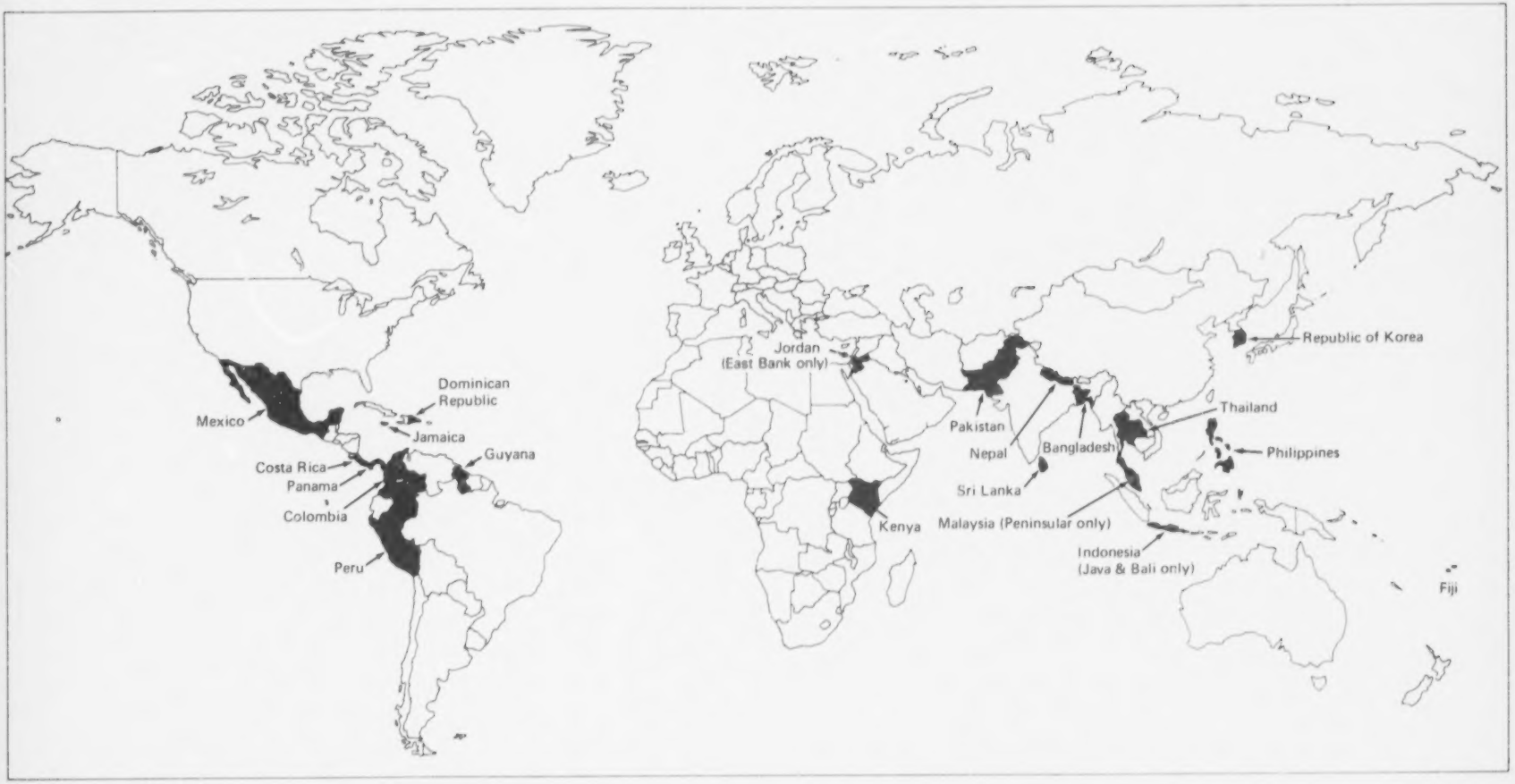
Preface

Knowledge and Use of Contraception in Twenty Developing Countries is the third report in a series based on data resulting from the World Fertility Survey (WFS). Begun in 1972 under the auspices of the International Statistical Institute and with major support from the International Union for the Scientific Study of Population, the United Nations' Fund for Population Activities and the United States Agency for International Development, the World Fertility Survey is an international research effort to encourage and assist countries in collecting and analyzing basic demographic data and more specific data on national patterns of fertility behavior.

The data are collected by trained interviewers, almost all women, who administer the WFS "core questionnaire" modified and translated for local use. An average survey involves detailed interviews with about 5,000 women. Tabulation of survey results has been standardized, facilitating international comparisons.

The first survey was conducted in Fiji in 1974. Within the next few years over 40 developing countries are expected to complete the survey and publish a First Country Report which provides some analysis of the data and a large number of tabulations. This Population Reference Bureau series is based primarily on the data presented in these First Country Reports and other WFS publications.

Figure 1. World Fertility Survey Countries Included in This Report



Introduction

Contraception, the conscious effort by people to limit the probability of pregnancy, is an important determinant of fertility in most developed and many developing countries around the world. Contraceptive methods range from sexual abstinence to surgical sterilization. Couples may rely on modern contraceptives—such as the intrauterine device (IUD) or the oral contraceptive pill—that interfere at some point in the biological chain leading from ovulation and intercourse to the implantation and growth of the fertilized ovum. Or, they may try more traditional contraceptive practices, perhaps as old as humanity itself, such as withdrawal, or *coitus interruptus*. Prescriptions for vaginal pastes and tampons using honey, oil, camel dung, and other substances can be traced back to ancient Egypt. The condom, in its more primitive form, has been known for several centuries.

Except for modern intrauterine devices, orals, and other hormone-based chemical contraceptives, all current contraceptive methods have been in use since the beginning of the twentieth century. Following the Second World War, advances in reproductive knowledge and the growing acceptance of contraception contributed to a climate that produced important technological breakthroughs in efficient and convenient contraceptive methods. The pill was developed during the 1950s and the modern IUD significantly improved shortly thereafter. Recent decades have also seen the development of safer less cumbersome procedures for male and female sterilization.

In addition, traditional contraceptive methods have been refined. New knowledge about the relationship between ovulation and certain body changes has increased the effectiveness of periodic abstinence although it is still substantially less reliable than the more modern methods. Improvements in design and materials have produced better condoms, diaphragms, cervical caps, tampons, and spermicides. Efforts are continuing to develop safer and more effective contraceptive methods for both men and women.

A contraceptive's effectiveness, as well as other advantages or disadvantages associated with it, such as cultural acceptability, cost, and side effects, are important determinants of how commonly it is used. The oral contraceptive pill is recognized as one of the most effective methods of preventing pregnancy. Injectable progestogen hormones prevent pregnancies in much the same way as the oral contraceptive. A simple injection (usually every three to six months) offers effective protection without the self-discipline that is required of the women who must take the pill every day. Both methods offer the added advantage of being independent from the sex act, but there is some concern about their safety.

When modern intrauterine devices first appeared some decades ago, they were seen as a major technological breakthrough, because, once in place, no further action is required of the user. Despite optimistic expectations, the IUD's popularity still suffers because of high expulsion rates and occasional side effects.

Sterilization for contraceptive purposes is a means of permanently ending reproduction. It requires a single act, is nearly 100 percent effective, and is relatively free of side effects. However, thus far it is generally considered to be irreversible. Contraceptive sterilization is a method largely used by older couples who have already reached or exceeded their desired family size. In many countries the prevalence of female sterilization is higher than that of male sterilization, although in others, like India, the reverse is true. The popularity of male and female sterilization as a contraceptive technique is increasing in part because of growing availability. However, the involvement of a surgical procedure may be hindering its wider use.

Other contraceptive methods, such as the condom, diaphragm, jellies, foams, tablets, suppositories, sponges, and creams share the disadvantage of being directly related to sexual intercourse and are subject to a high risk of failure if improperly or carelessly used. Although no contraceptive method is 100 percent effective, failure rates are the highest among contraceptives most closely linked to the time of intercourse. Abstinence and withdrawal, while not dependent on artificial means to avoid conception, pose the same problems since their effectiveness requires a more intense degree of motivation and care.

Reliance on contraceptives is not the only way to limit fertility. Variations in fertility levels result from a complex interplay of cultural, social, and economic forces that contribute to the reproductive behavior of individuals. These forces affect fertility by influencing not only contraceptive practices, but also marriage, lactation, and induced abortion, although other factors like sterility and spontaneous intrauterine mortality are also involved.[1]

Marriage or nuptiality (including consensual unions) patterns describe the ages at which people marry, how rapidly marital unions are formed, how long they last, and the proportions of people who ever-marry in a population. Marriage patterns play

a significant role in determining fertility since they affect the length of time a woman may be exposed to the risk of conception by living in union with her husband.[2]

Lactation or breast-feeding patterns influence fertility through biological and cultural means. Breast-feeding inhibits or delays ovulation, thereby biologically lessening the probability of conception. In some cultures fertility is also lowered because women reduce the frequency of, or completely avoid, intercourse while breast-feeding.[3]

Abortion contributes to fertility differentials by keeping the number of births below the maximum levels that could result given certain conception rates. Cultural and socioeconomic factors have an impact on the incidence of induced abortion. For example, abortion rates differ according to education and income level in many countries.[4]

In some, fertility can only change as a result of shifts in (1) patterns of family planning, including both levels of use and method mix; (2) abortion; (3) sexual behavior, including age at marriage, separation of couples either because one spouse is working away from home or because of marital disharmony, and marriage dissolution; and (4) lactation. Fertility can also be affected by changes in levels of fecundity and spontaneous abortion which in turn can be affected by diet, disease, or age. All other factors mentioned as having a potential impact on fertility can only have an influence through one or more of these direct forces.

Interpretation of WFS Data

This report describes the patterns of knowledge and use of contraception in the 20 developing countries indicated in Figure 1. One of these countries, Kenya, is in Sub-Saharan Africa, eight are in the Western Hemisphere, and the remainder are in Asia and the Pacific. These countries are extremely heterogeneous in terms of socioeconomic, ethnic, cultural, and other variables. Appendix Table A-1 summarizes some basic indicators for these countries. Earlier reports in this series briefly discuss some of their more salient characteristics.[5]

One of the principal accomplishments of the World Fertility Survey (WFS) has been to provide dependable and internationally comparable data on knowledge and use of contraception. In presenting these data, a two-way classification of contraceptive methods was devised. According to the criteria adopted, contraceptive methods are classified as follows:

(1) *Efficient Methods*—"modern" methods including contraceptive sterilization (male or female), the pill, IUD, condom, injections, and other female barrier and chemical methods (*i.e.*, diaphragm, jelly, foam, tablet, tampon, sponge, and cream).
(2) *Inefficient Methods*—"traditional" methods, including abstinence, rhythm, withdrawal, douche, and folk methods.

In general, "modern" methods have been labeled "efficient" while "traditional" methods have been labeled "inefficient." (The terms are used interchangeably in this Report). These categories are somewhat arbitrary but are standard WFS terminology. The rhythm method, under certain specific conditions, can be fairly effective. When this method is practiced carelessly, as it often is, failure rates may be 30 to 50 times higher.[6] Similarly, the pill, when properly used, is almost as effective as sterilization, but it can be quite ineffective if directions are not followed correctly. Abstinence is classified as an inefficient method although, by definition, conception cannot occur in the absence of sexual contact. Yet abstinence is considered inefficient because most couples do not follow this method for prolonged periods of time, or with the required consistency. Additionally, in some countries, interpretative difficulties may arise because some of the national surveys excluded certain methods from their questionnaires.

When evaluating the mix of contraceptive methods known or used at a specific time in a given country many factors should be considered. The availability of information, accessibility of services, and orientation of private and government-sponsored family planning programs are important considerations. Patterns of knowledge and use of specific contraceptive methods may be highly dependent on the vigor with which the various methods have been promoted. In some countries, family planning programs place heavy emphasis on particular methods or focus on providing selected contraceptive methods considered appropriate for specific groups. For instance, in Korea, the national family planning program for years promoted the use of the IUD. In some cases sterilization is only offered to couples with several children or with at least one son. In others, the "cafeteria approach" is used, placing a wide range of methods at the disposal of potential clients. Some of the factors that help explain the distinctive contraceptive knowledge and use patterns recorded in the surveys include not only the program differences noted above, but commercial availability of contraceptives through

local retailers, access of the people to these sources of advice and supply, cultural acceptability of given methods, and, in the case of traditional methods, their past prevalence.

Knowledge of Contraception

The questionnaire used in the national surveys gathered information on knowledge of contraception by asking all ever-married women* whether they know about ways of delaying or avoiding pregnancy. Those answering positively were asked to name the methods with which they were familiar. The respondents were then given descriptions of other methods and asked if they knew about these. For those who were unaware of any contraceptive methods, the complete list was described and their recognition of any of the methods recorded. Since such follow-up questioning increases the rate of positive response, the percentages of women expressing knowledge about contraception are highest following the use of this technique. WFS data represent a composite of the spontaneous and probing approaches, thus resulting in some comparability problems involving surveys that did not prompt for all methods.[7]

Keeping in mind these limitations, the WFS data offer a number of insights. Awareness of contraceptive methods, as shown in Figure 2, tends to be widespread in the 20 countries discussed. In all but one, three-quarters or more of ever-married women have heard of contraception; knowledge of contraception is nearly universal in about half of these countries.

Nepal is the only country where a majority of women have never heard of contraceptives. (Only 23 percent were aware of them.) To a minor extent this may have reflected the absence of probing about certain methods ("other" female modern, injection, douche, rhythm, and withdrawal). A more important reason for the low percentage is that, compared to the other countries, influences from the outside world are not yet strong enough in Nepal to erode the traditional nature of the society and contraceptives have not been generally available.

Modern methods are better known than traditional ones. Awareness of modern methods is greatest, as may be expected, in countries where the overall level of contraceptive knowledge is highest and where family planning programs exist.

Given the limitations previously described, the pill is the best known modern method in 16 of the 20 countries (see Table 1). In the remaining countries sterilization is the best known—female sterilization in Sri Lanka, the Dominican Republic, and Guyana, and male sterilization in Nepal. In Guyana, the IUD is equally well known. Overall, the IUD is the second best known modern method. Except in Nepal, at least 40 percent of all ever-married women were aware of IUDs. As a rule, the condom is well known although knowledge of this method may be under-reported since it is a male method. Familiarity with hormonal injectables varies greatly from country to country, as is true of other modern methods like foams and diaphragms. In countries such as Indonesia and Korea these methods are not familiar, while in others like Costa Rica and Jamaica over two-thirds of the ever-married women reported knowing of them.

As with the modern methods, familiarity with traditional methods tends to be positively associated with reported overall levels of knowledge, although the relationship is not as consistent. Cultural practices associated with the traditional methods may explain this irregular relationship. Rhythm and withdrawal tend to be the best known traditional contraceptive methods, especially among populations of European origin in Latin America. In some South Asian countries, such as Nepal and Pakistan, knowledge levels have not been ascertained because of data limitations in the survey, but it is generally thought that knowledge of withdrawal and rhythm is low in South Asia.

In sum, most women in these developing countries are aware of contraceptives—Nepal being the sole exception. The pill is by far the best known family planning method followed by the IUD. Some of the more traditional methods such as rhythm and abstinence are apparently not as well known as might be expected *a priori*. For example, only in Kenya and Fiji, among the countries reporting knowledge of abstinence, did over 40 percent of the ever-married women indicate familiarity with this obvious, if hard to practice, family planning method. This is not to imply that women do not know the relationship between intercourse and pregnancy. Rather, abstinence may not be a realistic option for them.

*Including separated, divorced, or widowed women in addition to those married or in consensual unions in those countries where these unions are prevalent.

Table 1. Percent of Ever-married Women Who Have Heard of Specific Contraceptive Methods: WFS Countries

COUNTRY	No. of Women*	Sterilization Female	Sterilization Male	Pill	Injection	IUD	Condom	Foam, diaphragm, etc.	Rhythm	Withdrawal	Abstinence	Douche	Other
AFRICA													
Kenya**	8100	54	14	74	55	49	40	20	50	25	45	12	21
ASIA AND THE PACIFIC													
Bangladesh	6515	53	51	64	—	40	21	10	28	15	12	31	5
Fiji	4928	96	40	98	50	97	83	41[a]	57	56	57	—[a]	5
Indonesia	9155	11	8	71	17	50	41	5	12	7	13	3	28
Jordan	3611	79	19	96	—	76	51	21	50	54	33	20	55
Korea, Rep. of	5430	66	84	94	5	91	75	5	58	37	25	27	2
Malaysia	6318	73	34	87	48	40	52	26	38	30	30	—	21
Nepal	5940	13	16	12	0	6	5	0	0	0	5	0	1
Pakistan	4952	7	2	63	13	48	14	7	0	0	2	0	1
Philippines	9268	75	70	90	—	86	88	40	66	65	36	21	4
Sri Lanka	6868	82	38	79	43	62	51	11	44	20	31	9	3
Thailand	3820	87	70	92	71	86	48	22	32	22	36	17	1
LATIN AMERICA AND THE CARIBBEAN													
Colombia	3302	72	38	90	71	82	60	56	56	47	28	41	9
Costa Rica†	3037	94	67	98	88	91	91	71	81	67	31	60	7
Dominican Republic	2256	95	30	91	68	78	72	60	43	56	—	47	12
Guyana	3616	79	22	78	38	79	73	45	46	48	32	36	10
Jamaica	2765	88	40	95	87	84	90	67	39	59	38	43	3
Mexico	6255	68	38	83	68	75	42	28	48	47	—[b]	38	4
Panama†	3203	93	65	95	26	89	76	56	66	61	35	62	4
Peru	5639	60	19	63	61	42	40	31	55	40	24	47	11

*Unless otherwise stated, based on women aged under 50 or 15-49 ever-married or in a union. Data taken from M. Vaessen, "Knowledge of Contraceptive Methods," *WFS Comparative Studies*, No. 8 (May 1980), Table 1, p. 16, and from standard recode data tapes.

**Based on all women 15-50.

†Based on ages 20-49.

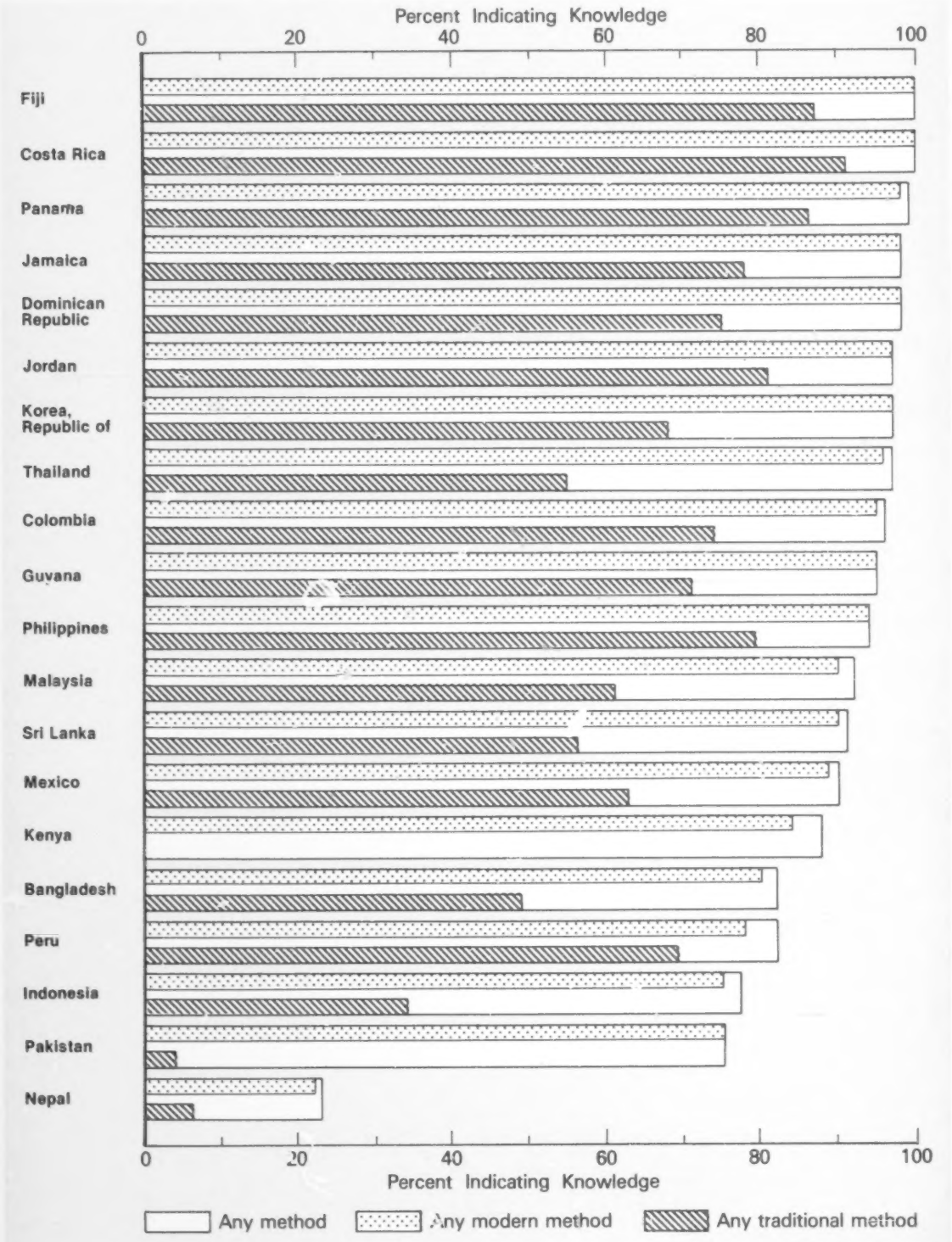
[a]Douche included with foam, etc.

[b]Included with "other".

—Not available.

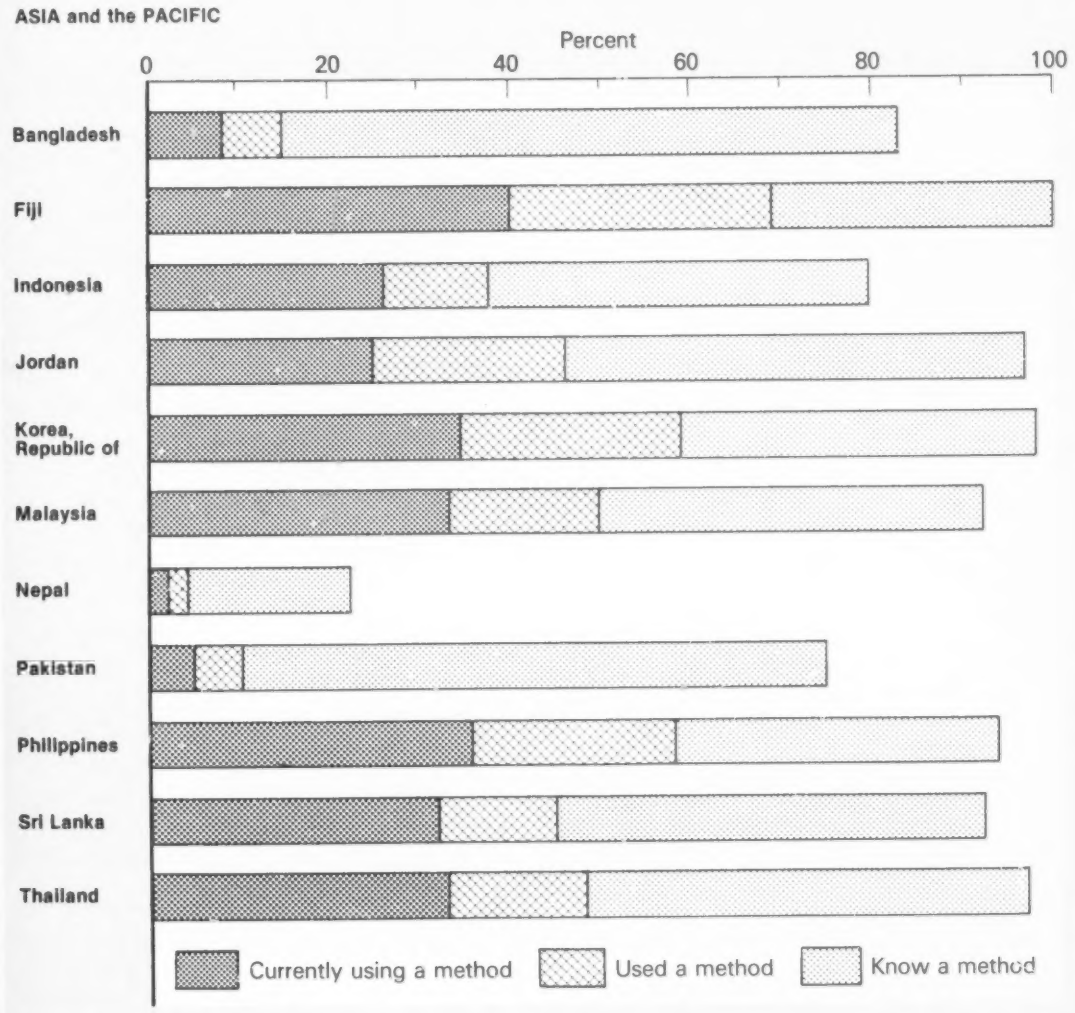
Source: United Nations, no date, Table 1, pp. 6-7.

Figure 2. Percent of Ever-married Women Indicating Knowledge of Contraceptive Methods: WFS Countries



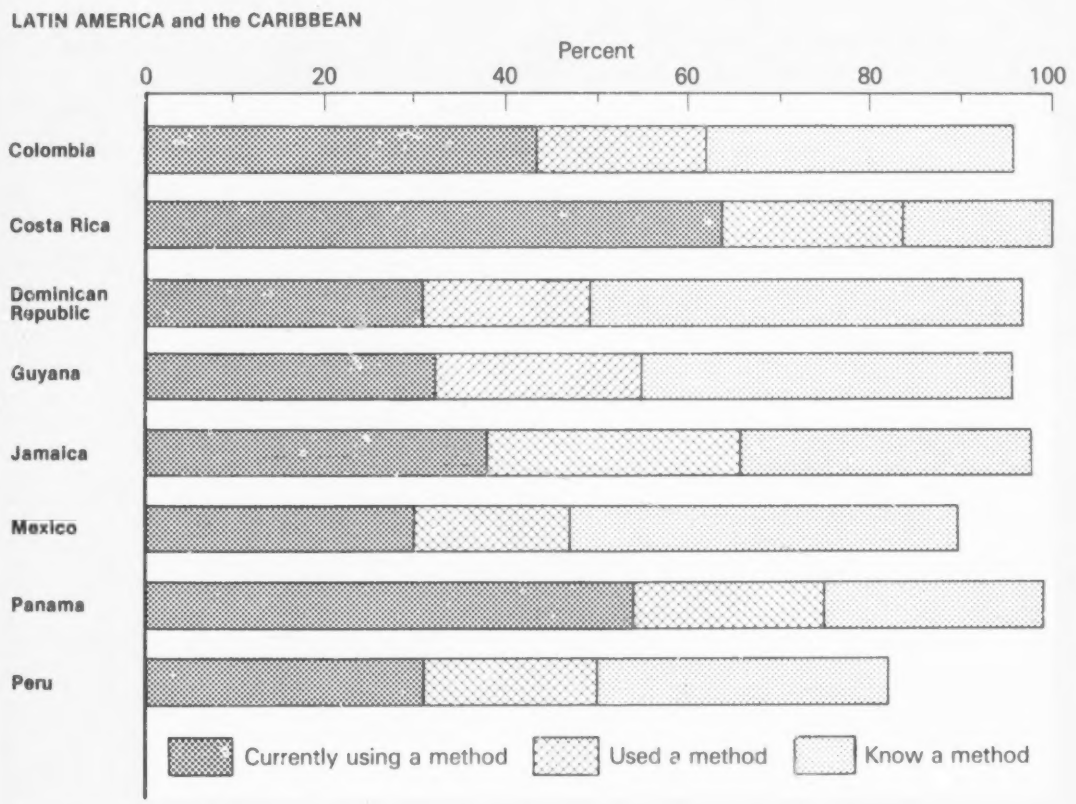
Source: Appendix Table A-2

Figure 3. Percent of Currently Married Women Who Know About, Have Used, and Currently Use Contraception: WFS Countries, Asia and the Pacific



Source: Appendix Table A-3.

Figure 4. Percent of Currently Married Women Who Know About, Have Used, and Currently Use Contraception: WFS Countries, Latin America and the Caribbean



Source: Appendix Table A-3.

Contraceptive Use

Having heard of contraceptives does not mean women use them. In order to determine the extent of actual use the WFS national surveys asked women to report whether they had ever practiced or were currently practicing birth control. Information about the extent of current contraceptive use is of great interest since it indicates how widely women or couples are consciously attempting to control their fertility. This information, particularly when available for different sub-groups of the population, is useful to administrators of family planning services concerned with satisfying the needs of their potential clientele.

Figures 3 and 4 show the percentages of currently married women who know about, have ever used, and are currently using contraception. These data involve currently married women rather than ever-married women thereby excluding women who although married or in consensual unions at one time

are now separated, divorced, or widowed. As expected, currently married women exhibit patterns of knowledge almost identical to those observed for ever-married women.

Generally, the percentages of current users among ever-users tend to be greater in countries where contraceptive prevalence rates are highest and the reverse holds true. This is particularly evident at the highest and lowest levels of contraceptive use.[8] In Costa Rica, for instance, where levels of ever-use and current use are highest, three out of every four women who ever used contraceptives are current users. In Nepal, where use levels are the lowest, only one of every two ever-users is a current user. Indonesia is an interesting exception since despite relatively low past levels, the percentage of current users among ever-users is nearly as high as in the countries with the highest prevalence rates. The opposite pattern can be observed in Fiji and Jamaica where the percentage of current users is relatively low despite high levels of ever use.

It is not clear what factors account for these patterns. The recentness and vitality of organized family planning programs, changes in the individual commitment to control family size, and the extent to which contraception is used to space births as well as to limit fertility may all be involved, among other factors.

Exposed Women

Not all currently married women are motivated or need to use contraception. Some are not concerned with methods to prevent conception because they are infecund, already pregnant, or want to become pregnant. Thus, when comparing the prevalence of contraception in many countries it is important to focus on the behavior of women who can become pregnant rather than all currently married women. The data in Table 2 categorize the currently married women in reproductive ages who are potential users of contraception—that is, women who are not pregnant or involuntarily infecund. Those exposed to pregnancy range from a low of 68 percent in Jordan to a high of 85 percent in Guyana. Significant proportions of women reported themselves as infecund. The range among countries is wide with the highest reported level three times greater than the lowest suggesting problems with self-reporting. Guyana with five percent has the lowest reported incidence, while Indonesia and Thailand—each with 17 percent—the highest. Cultural and regional differences in the self-reporting of infecundity may partially explain these disparities, although other factors are likely to be involved.

The proportion of currently married women pregnant at the time of the surveys ranged from nine percent in Costa Rica and Jamaica to 21 percent in Jordan. Such a wide range results from differentials in both age structure and fertility among countries. In general, low fertility countries tend to have smaller proportions of pregnant women.

Many non-pregnant, fecund women are not currently using a contraceptive method and will not use one in the immediate future because they desire to have children, and may be trying to become pregnant. While some women use contraceptives in order to cease childbearing completely, having reached or exceeded their desired family size, others do so for spacing purposes. Still other women may stop for short periods of time for a variety of reasons, such as temporary separations from their spouse, contraceptive side effects, etc.

The percentage of exposed women who are actual users is shown in Figure 5. In all countries but four, 37 percent or more of the exposed women are attempting to control their fertility. Current use levels are exceptionally high in Costa Rica and Panama. In Costa Rica, almost eight out of ten exposed women practice family planning, and in Panama almost seven out of every ten. Kenya and the South Asian countries of Bangladesh, Pakistan, and Nepal exhibit the lowest percentages of current use: 9, 10, 7, and 3 percent, respectively, of exposed women.

Specific Contraceptive Methods in Current Use

An important consideration when comparing contraceptive prevalence rates across countries is the use-pattern of particular methods, that is, what specific methods are favored and used by both family planning programs and the users themselves. This "method mix" can influence the observed prevalence rates. For example, in Panama, where 39 percent of those currently practicing family planning use sterilization, a higher contraceptive prevalence rate should be expected since this method is irreversible and most women using it will remain in the "current user" group. On the other hand, the opposite impact is felt in Colombia, where the pill is the principal method of family planning, since this method may be used intermittently for spacing children as well as to terminate childbearing.

Table 2. Marital Status of Women in the Reproductive Ages and Exposure Status of Currently Married Women: WFS Countries

COUNTRY	Percent Currently Married of All Women Aged 15-49	Total[a]	Currently Married Women Percent Exposed	Infecund	Pregnant	Percent Exposed of All Women Aged 15-49
AFRICA						
Kenya	71	100[c]	73	11	17	52
ASIA AND THE PACIFIC						
Bangladesh	81	100	81	7	13	65
Fiji	64	100[c]	78	10	12	50
Indonesia	69	100	72	17	12	50
Jordan	66	100	68	11	21	45
Korea, Rep. of	62	100	76	13	11	47
Malaysia	57	100[b]	77	11	11	44
Nepal	84	100[b]	79	11	11	66
Pakistan	75	100	71	12	17	54
Philippines	54	100[b]	75	11	14	41
Sri Lanka	54	100	76	14	10	41
Thailand	60	100	73	17	10	44
LATIN AMERICA AND THE CARIBBEAN						
Colombia	53	100	82	6	10	44
Costa Rica[c]	68	100[b]	82	9	9	56
Dominican Republic	56	100[b]	75	8	18	42
Guyana	—	100	85	5	10	—
Jamaica	63[d]	100[b]	84	7	9	53
Mexico	60	100[b]	73	13	15	43
Panama[c]	74	100	83	7	10	61
Peru	56	100	76	11	13	43

[a]Percentages may not add to 100 because of rounding.

[b]Includes women currently pregnant but not married, if any.

[c]All figures pertain to age group 20-49.

[d]Data taken from S. Singh, "Evaluation of the Jamaica Fertility Survey," WFS/TECH.1203 (19 October 1979), Table 10, p. 21, mimeo.

—Not available.

Source: United Nations, no date, Table 4, p. 14. (Unless otherwise stated, data taken from WFS First Country Reports and standard recode data tapes).

Each method's degree of effectiveness is also important. Sterilization, the IUD, and the pill are nearly 100 percent effective. Other contraceptives such as chemical spermicides and calendar rhythm, even under ideal conditions of use, are far less effective in averting pregnancy. Thus in populations where the prevalence of more effective methods is highest, women are more likely to be successful in limiting their fertility than in populations where less effective methods predominate.

Table 3 indicates the "mix of family planning" methods used. In all countries but the Philippines and Peru, a majority of current users rely on modern contraceptive methods. In Nepal, Thailand, Guyana, and Jamaica 90 percent or more use modern methods. Of course, in Nepal a very low percentage of currently married women use any contraceptive. Among the countries where a substantial proportion of the women are current users—Fiji, Colombia, Costa Rica, and Panama—most rely on modern methods.

Figure 5. Percent of Exposed Women Who Are Currently Using Contraception: WFS Countries*

* "Exposed" women are currently married (or in a consensual union), not pregnant, and either (a) believe themselves physiologically capable of bearing children, or (b) are sterilized for contraceptive purposes.

Source: Appendix Table A-3.

Among modern contraceptive methods the pill is the most frequently used. In Indonesia 56 percent of users rely on the pill and in all but five of the other countries use levels range from 20 to 50 percent. The pill is least common in Sri Lanka where it is taken by only five percent of women practicing family planning.

Other modern contraceptive methods in common use are the IUD and sterilization. Current use of the IUD ranges from a high of 23 percent in Korea to three percent or less in Malaysia and Nepal. The extent of contraceptive sterilization in some countries reflects the emphasis of particular national family planning programs. For example, in Nepal, male sterilization accounts for 65 percent of current contraceptive use, female sterilization for three percent. Contraception is clearly a means of limiting the number of children rather than spacing births among the few Nepalese couples who rely on some form of birth control.[9] High levels of sterilization are also found in Fiji, the Dominican Republic, and Panama; nearly 40 percent of the women practicing contraception in these countries rely on this method. The World Fertility Survey shows that sterilization accounts for ten percent or more of contraceptive use in all but four countries: Peru, Colombia, Indonesia, and Jordan. The 1978 Contraceptive Prevalence Survey for Colombia found, however, that by that year 17 percent of women users currently in union relied on sterilization. Other modern methods are not commonly used in Asian countries or in Kenya. They are slightly more popular in Latin American countries, where, except for the condom, they account for between three and seven percent of contraceptives used. The condom is quite popular in many Asian and Latin American countries, its use rivaling that of other modern methods.

Among traditional methods, rhythm is the most popular. About one-fourth of the contraceptive users in the Philippines and Sri Lanka practiced rhythm. In Indonesia, Thailand, the Dominican Republic, Jamaica, and Panama use of this method was low. Withdrawal and abstinence are commonly relied upon in only a few countries. Withdrawal is most popular in the Philippines, where it is practiced by 26 percent of couples using contraception. In Jordan, Colombia, the Dominican Republic, and Peru dependence on withdrawal was also substantial. Abstinence was practiced by 22 percent of the users in Pakistan and by over ten percent of those in Bangladesh and Sri Lanka. Peru is the only Latin American country where a substantial proportion of women rely on abstinence to limit their fertility.

Table 3. Percent Distribution of Current Contraceptive Users by Method: WFS Countries*

COUNTRY	Modern Methods:[a]	Pill	Injection	IUD	Condom	Diaphragm, Foam etc.	Sterilization Female	Sterilization Male	Traditional Methods:	Rhythm	Withdrawal	Abstinence	Douche	Other
AFRICA														
Kenya	60	30	10	10	0	0	10	0	40	20	—	20	—	—
ASIA AND THE PACIFIC														
Bangladesh	61	35	0	6	9	0	4	6	39	13	7	15	1	3
Fiji[c]	86	20	—	11	15	—[d]	—— 39 ——		15	6	6	—	3	—
Indonesia	87	56	1	21	7	0	1	0	13	3	1	4	0	5
Jordan	69	47	—	8	6	1	7	0	30	8	13	1	0	8
Korea, Rep. of	77	24	1	23	15	1	5	9	22	13	7	1	1	0
Malaysia	72	—— 49 ——		2	9	1	10	1	28	11	6	5	—— 6 ——	
Nepal	98	17	0	3	9	0	3	65	2	0	0	2	0	0
Pakistan	72	18	0	12	19	3	18	1	28	2	2	22	0	2
Philippines	45	13	0	6	10	0	13	2	55	24	26	5	0	0
Sri Lanka	59	5	1	15	7	0	—— 31 ——		41	25	5	11	0	0
Thailand	92	41	6	18	1	0	19	6	9	3	3	2	0	1
LATIN AMERICA AND THE CARIBBEAN														
Colombia	72	31	1	20	4	5	9	0	28	12	11	2	1	2
Costa Rica	83	35	3	8	14	3	19	2	16	8	7	1	0	0
Dominican Republic	84	—— 26 ——		9	5	7	38	0	16	4	11	—	—	1
Guyana	90	29	1	18	9	6	27	0	10	3	4	2	0	1
Jamaica	94	31	16	5	17	4	21	0	6	1	4	1	0	0
Mexico	77	36	6	19	2	5	9	1	23	16	12	—	1	0
Panama	85	32	1	7	2	3	39	1	16	5	6	3	1	1
Peru	36	13	3	4	3	3	9	0	65	35	10	7	11	2

*Percentages have been calculated on the basis of currently married current users aged 15-49 years or under age 50, unless otherwise specified. Percentages may not add to 100 because of rounding.

[a]Sterilization, pill, injection, IUD, condom, diaphragm, and foam and other spermicides.

[b]Includes other spermicides, such as jelly, suppositories.

[c]Excludes women practicing post-partum abstinence.

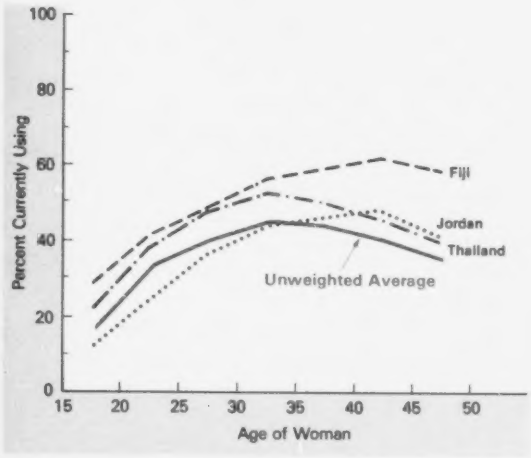
[d]Included with "Other" category.

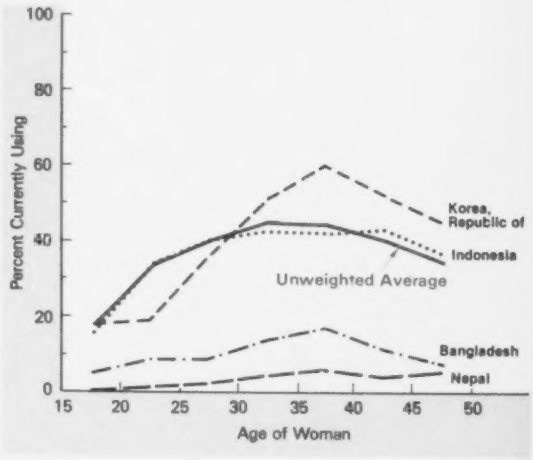
—Not available.

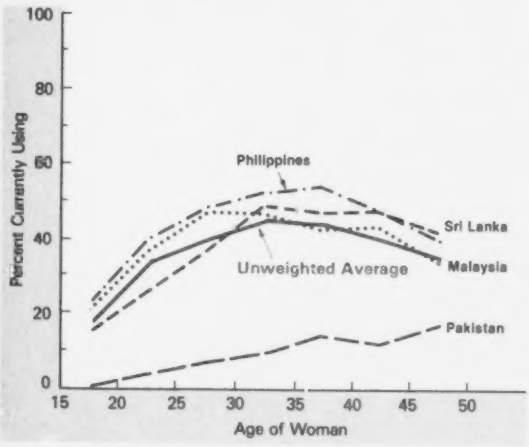
Sources: Kenya: *1977/78 Kenya Fertility Survey, Major Highlights* (WFS), Table 22, p. 55.

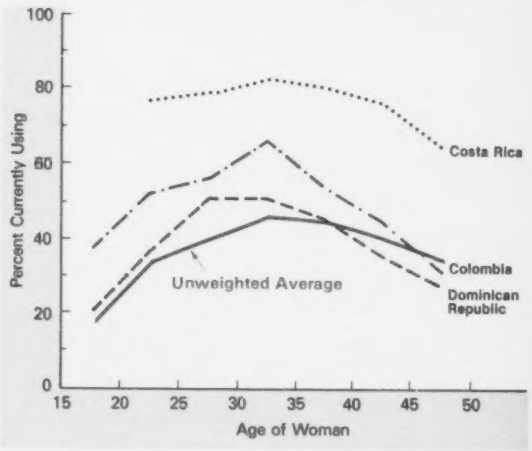
All Other Countries: United Nations, no date, Table 6, pp. 22-27. (Unless otherwise stated, taken from WFS First Country Reports and standard recode data tapes.)

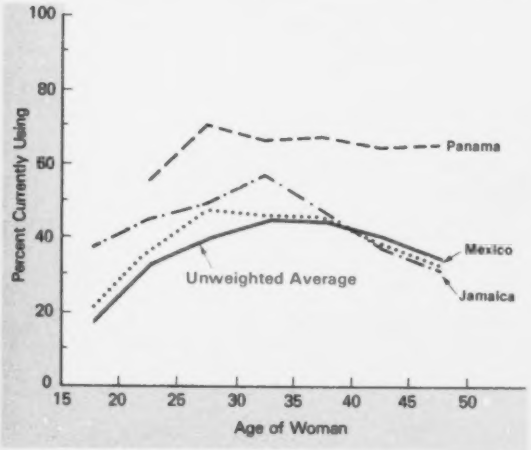
Figure 6. Percent of Exposed Women Currently U..ng Contraception by Age: WFS Countries

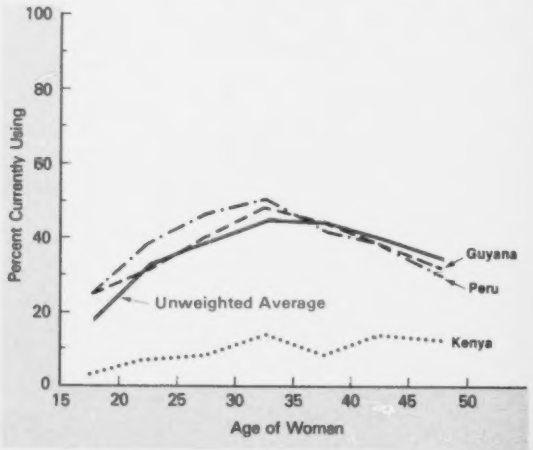












Source: Appendix Table A-4.

Other traditional methods are found only to a limited extent in these countries. One notable exception is douching in Peru where 11 percent of contraceptive users employ this method.

Patterns of Contraceptive Use by Selected Background Variables

Many factors influence the extent to which women practice contraception. A woman's age and number of living children are important. Other variables, such as educational attainment, employment status, and availability of services are also generally found to be associated with contraceptive use.

Younger women who have just entered reproductive unions are less likely to practice contraception than older women who have been married for a number of years. They are often eager to start their families and may also be less aware of contraception. The more children a woman has the more likely she has attained her desired family size and will take action to avoid additional births. Higher educational attainment or participation in the labor force may increase the opportunity cost of having children or in other ways motivate or enable women to use contraceptives. These relationships are not straightforward, however. Some young women, for example, may begin to practice contraception immediately after entering into reproductive unions to postpone the birth of the first child. Many cultural and economic factors as well as program goals contribute to observed variations in patterns of contraceptive use.

A brief discussion of patterns of contraceptive use by age of women, number of living children, education, residence, and labor force status of women at the time of the national surveys is presented.

Contraceptive Use by Age of Exposed Women

Current contraceptive use patterns by age among exposed women are curvilinear, with the percentages of women practicing contraception lowest at the younger and older ages, and highest in the middle reproductive years (as illustrated in Figure 6). For comparative purposes the unweighted average of exposed women using family planning by age for all countries combined is also shown.

Most countries conform to the general pattern described above, although there are some notable deviations. Younger women in Korea and Sri Lanka, for example, are much less likely to regulate their fertility than their counterparts in other countries with comparable *overall* contraceptive prevalence rates such as Malaysia and Thailand. The pattern observed in the former countries may result from cultural preferences for rapid family formation after couples enter into reproductive unions. The curvilinear pattern is less noticeable in countries with the lowest and highest levels of overall contraceptive use, especially the latter. Indeed, in Fiji the percentage of contraceptive users rises consistently with age. In countries like Kenya, Nepal, and Pakistan, where overall contraceptive levels are low, usage also rises as age increases.

In general, however, contraceptive use is greatest among women between ages 25 to 39, and least among younger women. This pattern is shown in Figure 6 in the unweighted average for all 20 countries combined.

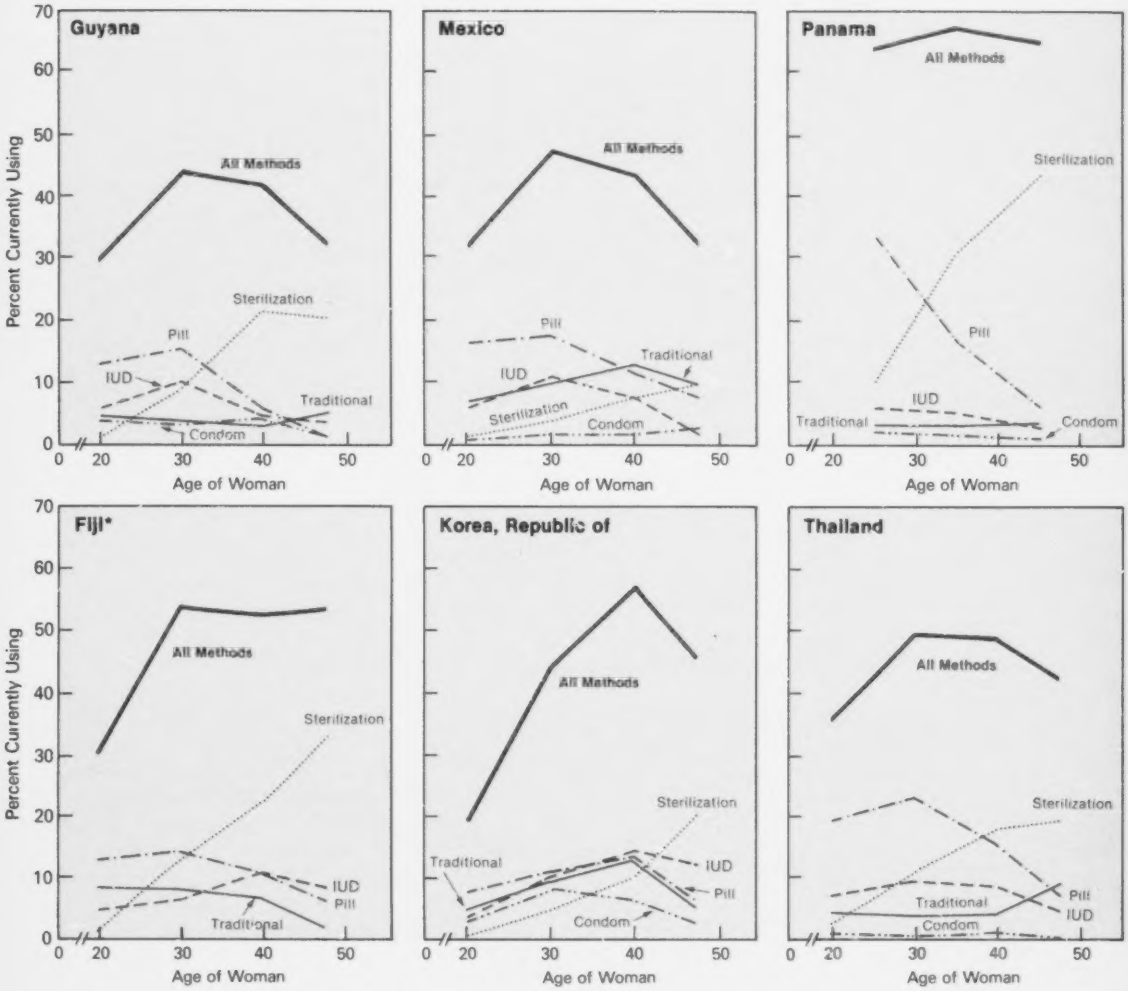
Contraceptive use patterns by age for specific methods differ considerably as illustrated in Figure 7 with data from Guyana, Mexico, Thailand, and Fiji.[10] Sterilization presents the most consistent pattern. Sterilization levels tend to rise with age or, at least, to plateau at the highest levels past a given age, as in Guyana. The rising incidence with age is expected because usually only women who have already reached or exceeded their desired family size undergo this irreversible procedure.

Use rates for condoms and the pill rise with age reaching their peak during the mid-years of a woman's reproductive life (roughly ages 25 to 34). This may result from the tendency of younger women to practice contraception following the birth of one or two children soon after marriage. The declining trend at older ages may reflect a switching from these methods to more permanent methods of curtailing fertility such as sterilization, or by increasing dependence on traditional methods as frequency of intercourse and the level of fecundity decline. Younger women may also be more inclined to practice contraception in general particularly in countries where family planning behavior has only become widespread in recent years. No discernible patterns of use according to age can be identified with the remaining methods shown in Figure 7.

Contraceptive Use by Number of Living Children

Given the close relationship between age and parity it is reasonable to expect that the patterns of contraceptive use by number of living children should resemble those noted for contraceptive use by age. Figure 8 indicates that this is the case. For comparison, the unweighted average of exposed women

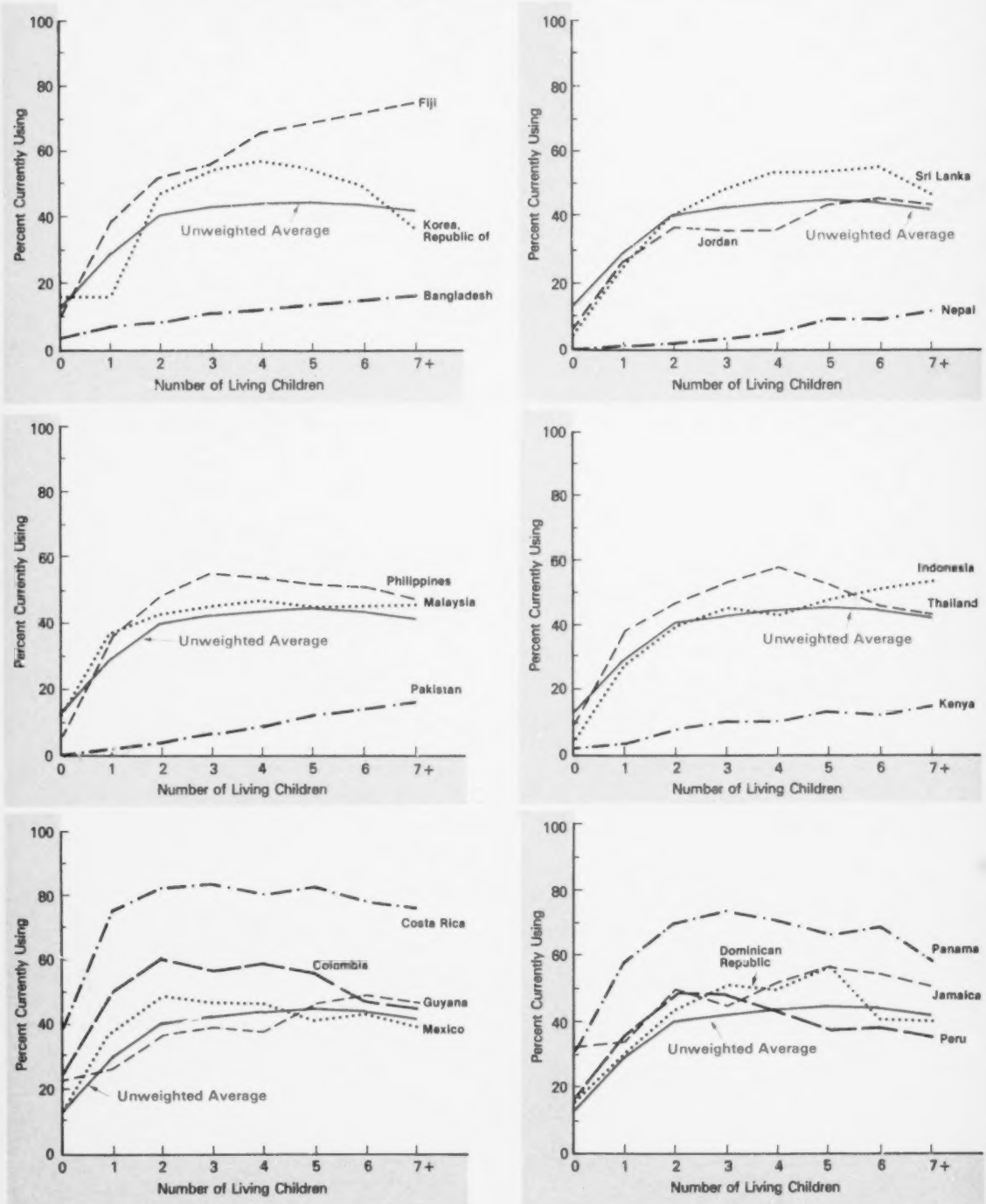
Figure 7. Age Patterns of Use for Specific Contraceptive Methods Among Exposed Women: Selected WFS Countries



*Data not available on condom usage by age of woman.

Source: Appendix Table A-5.

Figure 8. Percent of Exposed Women Currently Using Contraception by Number of Living Children: WFS Countries



Source: Appendix Table A-6.

practicing contraception by number of living children is included.

Few generalizations are possible regarding the relationship between contraceptive use and number of living children except that the most significant increases in use are recorded up to the third living child. The most dramatic illustration of this pattern can be observed in Korea where women with two children were twice as likely to be using contraceptives as those with only one. On average, contraceptive use tends to level off with subsequent children. However, the pattern is not uniform in all countries. In Bangladesh and Fiji the increasing tendency toward contraception by number of living children is unmistakable, while in Korea, Thailand, Colombia, and the Dominican Republic use levels tend to decline somewhat as the number of children increases. More traditional attitudes among higher parity, older women may account for this decline since they are likely to be less educated, have a lower motivation to practice family planning, and be less aware of modern contraceptive methods than younger women. Also contraceptive users are less likely to have large families.

One striking regional difference can be observed: Latin American and Caribbean women with fewer living children are more likely to try to limit their fertility than Asian or Kenyan women. This is especially true of childless women, and to a lesser extent of women with one or two living children. Perhaps Latin American and Caribbean women are more likely than women from other regions to use contraception for spacing births and/or are relatively less prone to initiate childbearing immediately after entering a reproductive union. Cultural and other factors such as a higher incidence of consensual unions may also be involved in this differential. Finally, some Asian programs only allow access to family planning services to women with the prescribed number of living children. In addition, some Asian countries have tended to emphasize the IUD rather than the pill, even though it is often difficult to use for women who have not yet given birth.

Contraceptive Use by Level of Education

Many studies have found a consistent inverse relationship between fertility and education. Since variations in fertility are influenced to a significant degree by the frequency of contraceptive use it follows that educational and contraceptive use levels tend to be positively related.

Respondents in the World Fertility Survey were asked whether they had ever attended school and the highest year and/or level of education completed. Since educational systems and the substance and quality of instruction vary tremendously among countries, there is no universally applicable indicator of education. In this paper, women are classified according to the highest level attended—no education, primary education, secondary education.[11]

The often dramatic differences in contraceptive behavior by education groups are shown in panel one of Table 4. Except in Fiji and Korea, where women with no education have higher prevalence rates than women with primary education, the expected positive relationship between contraceptive use and education can be observed. Particularly large discrepancies in the family planning practices of women in different educational categories are noted in Colombia, Mexico, Peru, and Jordan. In each of these countries more than 65 percent of the currently married, fecund, nonpregnant women who have had at least some secondary school education currently use a contraceptive method. Women who have never attended school have use rates below 30 percent in Colombia and Jordan and below 20 percent in Mexico and Peru.

Comparing contraceptive prevalence rates by educational level without controlling for differences in the distribution of women by age or number of living children conceals the influence of these factors. Since educational opportunities and school attendance rates in most countries have dramatically risen in recent years, younger women tend to be, on the average, better educated than older women. The number of children a woman has is strongly influenced by variables such as age at marriage which in turn has a direct bearing, at least in some societies, on the extent to which women may pursue a formal education. Panels two and three on Table 4 present current contraceptive use rates by levels of education standardized for age and number of living children. Mexico's age and parity distribution for exposed women is the standard used.

Standardizing the contraceptive use rates by education for age and number of living children tends to accentuate the positive relationship between contraceptive use and education. In general, standardizing by number of living children produces greater differences between education groups than standardizing by age, since parity partially reflects duration of marriage (particularly in high fertility countries) and thus reflects differences in age at marriage. By eliminating the effects of differences

Table 4. Percent of Exposed Women Currently Using Contraception (Including Sterilization) by Education of the Respondent: Selected WFS Countries*

COUNTRY	No Education	Primary	Secondary	Rates Standardized for Age** No Education	Primary	Secondary	Rates Standardized for Number of Living Children** No Education	Primary	Secondary
ASIA AND THE PACIFIC									
Bangladesh	7.4 (3534)	14.2 (883)	27.2 (218)	8.3	18.0	35.6	8.6	17.6	37.6
Fiji	59.2 (682)	55.2 (2197)	56.1 (435)	—[a]	—[a]	—[a]	52.6	57.6	66.2
Indonesia	31.0 (2309)	39.2 (2976)	57.0 (319)	30.3	42.5	59.9	34.5	46.0	68.0
Jordan	27.8 (1530)	47.9 (484)	66.4 (323)	25.3	54.9	69.7	21.4	50.0	71.0
Korea, Rep. of	44.7 (640)	43.4 (2002)	50.1 (1199)	36.6	39.0	47.3	37.7	41.0	56.6
Malaysia	31.3 (1403)	44.8 (2319)	56.9 (541)	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Philippines	16.0 (299)	34.2 (1512)	53.8 (4872)	12.1	32.5	52.5	15.8	31.2	53.1
Sri Lanka	28.6 (880)	38.0 (1822)	50.0 (2008)	25.9	36.2	49.4	26.3	38.2	56.2
Thailand	27.0 (577)	38.4 (2303)	45.8 (240)	33.8	40.0	48.0	27.5	38.3	49.5
LATIN AMERICA AND THE CARIBBEAN									
Colombia	27 (451)	52 (1378)	74 (489)	27	53	75	25	52	75
Costa Rica	68.5[b] (445)	79.2 (1192)	82.0 (585)	68.9	79.8	82.6	64.8	77.6	85.7
Dominican Republic	17.0 (112)	37.7 (1242)	62.6 (139)	23.7	39.3	64.2	17.0	38.9	64.3
Guyana	38.0[b] (442)	38.1 (1262)	38.3 (933)	35.1	34.9	42.6	32.6	35.9	45.4
Jamaica	36.5[b] (239)	44.3 (1219)	53.1 (471)	40.1	45.4	55.7	36.4	45.6	58.9
Mexico	19.3 (809)	39.9 (2545)	71.0 (753)	18.6	40.4	70.6	17.3	39.4	73.6
Panama	47.3[c] (501)	65.8 (875)	74.5 (881)	47.2	65.5	74.6	48.4	65.6	73.0
Peru†	16.2 (3417)	40.0 (6940)	68.3 (3484)	15.2	39.7	68.3	19.5	39.1	69.5

*Nepal excluded because 95 percent of the women had no education. Pakistan's first country report did not contain enough information on use rates by education.

**Mexico's sample of exposed women used as the standard. In most cases age groups are <25, 25-34, 35-44, 45-49, and number of living children is categorized as 0, 1, 2, . . . , 5, 6+.

†Peru's percentages are based upon weighted data; the weighted frequencies are given.

[a]Fiji: data not available by age; Malaysia: data not available by age and number of living children.

[b]No Education includes None and Less than Three Years of Primary.

[c]No Education includes Less than Fours Years of Primary; no respondents had No Education.

Sources: WFS First Country Reports, Tables 1.6.3 and 4.4.5 except for Fiji (D17, D19, and H11), Indonesia (2.3.5), and Thailand (1.5.3 and 4.4.2).

in age and parity through standardization, women with no education in Peru have slightly higher use rates than women in Mexico and the Dominican Republic. The small differences in the contraceptive behavior of women with different levels of education in Guyana are more likely to reflect differences in distributions of living children than real variations in levels of contraceptive use.

The WFS findings just reviewed tend to contradict partially the conclusions of a recent United Nations' study.[12] This study concluded that cross-country variations in contraceptive prevalence rates could not be explained by differences in overall educational levels. Differences in contraceptive behavior, the United Nations' study found, were evident between countries among women with roughly similar levels of education. However, WFS results show that contraceptive use rates for women with a secondary education are more consistent across different countries than such a conclusion would suggest. (Note that except for Bangladesh and Guyana all contraceptive use rates shown in Table 4, whether standardized or not, approximate or exceed 50 percent of exposed women.)

In general, a country's overall level of contraceptive use is influenced not only by differences in contraceptive prevalence among women with different educational backgrounds, but also by the proportion of women in each group. For example, despite the fact that women with a secondary education in Jordan have a higher use rate than women with similar educations in Korea, Korea's overall contraceptive use rate is considerably higher. This is because the proportion of women with a secondary education is much lower in Jordan than in Korea, and Korean women exhibit much narrower differences in contraceptive use among all educational levels. Similar patterns can be seen when comparing Jamaica with Mexico or Peru. On the other hand, Guyana, while having one of the lowest use rates of the Latin American-Caribbean countries, has one of the highest use rates for women with no education. Cultural and other variables obviously influence specific country patterns.

Education and Type of Method Used

Better educated women have higher use rates for both traditional and modern methods.[13] These differentials are not shown here, but they suggest that although a woman's level of education is an important determinant of whether she uses contraception, other factors influence her choice of method. These include conditions and personal considerations such as a husband's attitudes and her own opinions about the convenience and reliability of certain methods. It is possible that some contraceptive methods are more frequently used by less educated women. However, the nature of these relationships cannot be ascertained through the tabulations provided in the First Country Reports.

Contraceptive Use by Place of Residence

Many studies in developing countries have shown that women living in urbanized areas are more likely to use contraceptives than those in the countryside. The reasons for this phenomenon have been linked to several factors characteristic of rural populations: a lower awareness of family planning methods, a lack of access to family planning supplies and services, and a desire for large families. Also, the demographic profile of rural populations is usually different from that of towns and cities. Rural residents tend to be somewhat older and have a lower educational attainment than their urban counterparts. In some countries, such as Malaysia and Guyana, major ethnic groups dominate urban or rural populations, adding the effects of religious and cultural differences.

The division into urban and rural categories is not always clearcut and the significance of the distinction is not the same in every country or even within regions of the same country. In some regions, the attitudes and lifestyles of residents of small towns may be closer to those of the rural population than of residents of the capital cities. But generally, urban residents are more likely to practice contraception in part because of their greater exposure to information about contraceptive methods, and their easier access to them through the commercial sector and public and private health services.

The division of residence into two categories, while simplifying the descriptive analysis, masks some of the range of behavior between the capital cities, provincial towns, and the countryside. Table 5 illustrates the prevalence of contraceptive use by several types of residence for selected WFS countries. In most countries, use is highest in the principal cities, somewhat lower in the other urban areas and lowest in rural areas. However, this pattern does not emerge in all countries. In Indonesia, Guyana, and Panama, the difference in use by residence is negligible, while in Mexico, Peru, and Thailand, the expected pattern of increased contraceptive use in urban, and particularly principal urban areas, is evident. This suggests that the dif-

Table 5. Percent Distribution of Exposed Women by Current Use of Contraceptive and Place of Residence: Selected WFS Countries

PLACE OF RESIDENCE	Percent Using Contraceptives	Number of Women
Bangladesh		
Dacca City	37	262
Other Urban	19	755
Rural	9	3417
Indonesia		
Jakarta	39	899
Other Urban	41	963
Rural	36	3904
Guyana		
Georgetown & Suburbs	43	781
Other Urban	31	199
Rural	36	1736
Kenya*		
Metropolitan	24	—
Urban	19	—
Rural	8	—
Mexico		
Mexico City	62	913
Other Urban	53	1501
Rural	20	1693
Panama**		
Metro/Urban	72	994
Other Urban	74	277
Rural	66	986
Thailand		
Bangkok/Thonburi	60	237
Other Urban	57	172
Rural	43	2168

* Women aged 25 to 34 years only

** Women aged 20 to 49 years only

—Not available

Sources: Kenya: *1977/78 Kenya Fertility Survey, Major Highlights*, (WFS), Table 24, p. 58. All Other Countries: Lightbourne, 1980, Table 28, pp. 64-65.

ference in use of family planning by type of residence is not a sharp one; rather it varies according to the size and type of rural and urban areas and perhaps according to the size of the country and prevailing patterns of population distribution.

Prevalence rates by urban/rural residence are shown in Figure 9 for the 20 countries. Because rural residents are, on the average, older than urban residents, and contraceptive use varies by age, these rates were adjusted by WFS to remove the effects of the difference in age distribution.[14]

In each of the countries, the urban rates are equal to or higher than the rural rates. The magnitude of the differential varies from near zero in Indonesia, Korea, and Costa Rica to a seven-fold difference in Nepal. In general, as shown in Table 6, the ratio of urban to rural contraceptive use is highest in countries with extremely low prevalence, as for example, in Nepal, where only four out of every 100 exposed women currently use contraception. This could be partially explained by the recentness of the introduction of modern family planning methods, which are likely to be first available to urban women.

In developed countries, where contraceptive use has long been acceptable and where the strong communications and commercial sectors have helped to homogenize the urban and rural populations, there is little difference in contraceptive use by type of residence. Likewise, in three of the four WFS countries with prevalence rates over 50 percent, the ratio of urban to rural use was small, 1.29 or less.

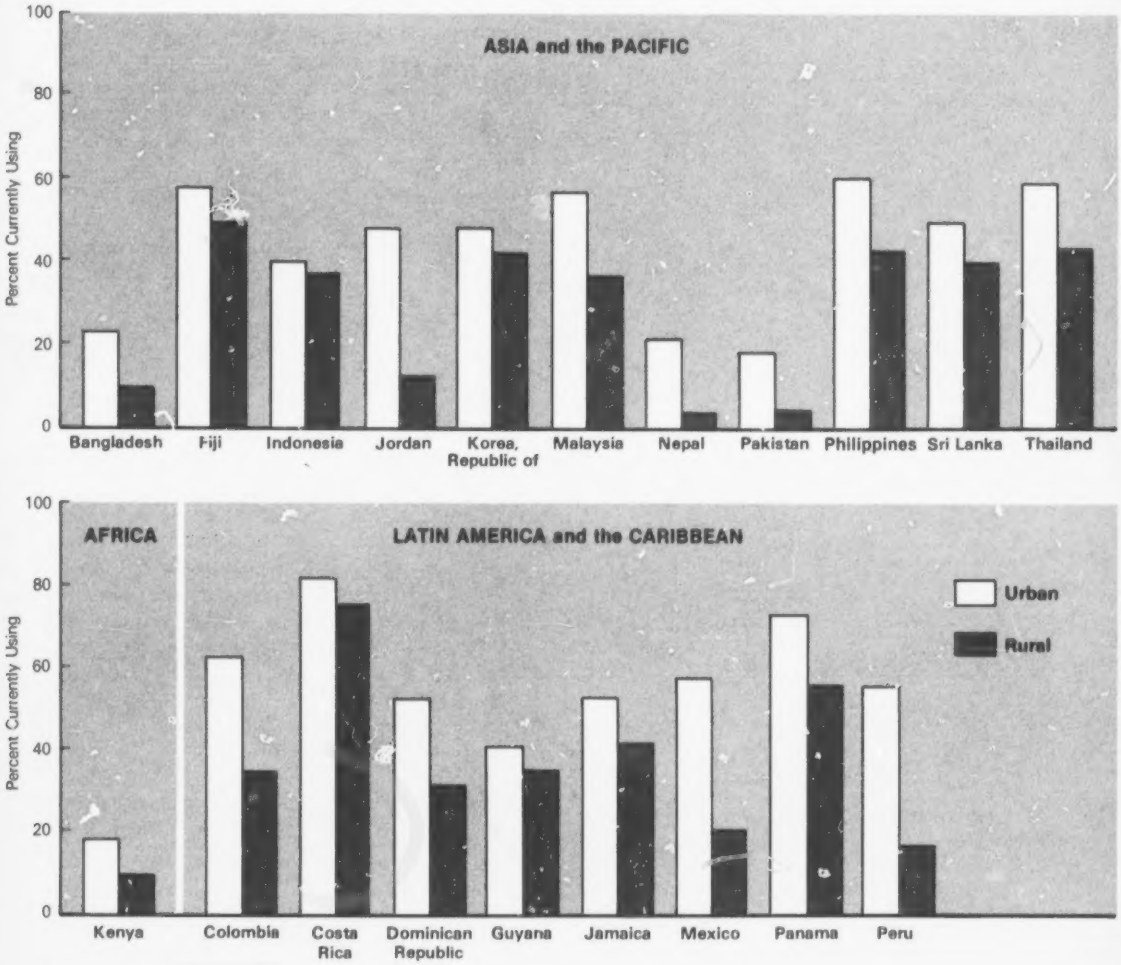
For the majority of countries, those with use rates between 30 and 50 percent, the ratio of urban to rural contraceptive use ranged widely, from 1.08 for Indonesia to 3.70 for Jordan. This variation most likely reflects a combination of the diversity of cultural attitudes toward family planning and differences in the availability of methods within countries. The average ratio of urban to rural contraceptive use was somewhat higher in the Asian and Pacific countries than among the Latin American and Caribbean countries, 2.50 and 1.78, respectively. In taking the 20 countries together, urban contraceptive use was slightly more than twice that of rural use.

Place of Residence and Type of Method Used

Because use of modern contraceptives is limited by their availability in some areas, it is worthwhile to examine differences in the use of efficient methods which are supply or clinic-dependent, and inefficient (traditional) methods. The use of traditional methods is not higher in the rural areas except in Panama, where urban reliance on withdrawal, rhythm, and similar methods is only two-thirds what it is in the rural areas. In eight of the countries, the use of inefficient methods follows essentially the same pattern by residence as modern methods.

In Indonesia and the Republic of Korea, where community-based family planning programs have been successful in reaching the countryside, the use of modern practices is at least as common in rural areas as in the towns and cities. Indeed, in Indonesia, urban women are only 88 percent as likely

Figure 9. Percent of Exposed Women Currently Using Contraception by Urban/ Rural Residence: WFS Countries



Source: Appendix Table A-7.

*Table 6. Percent of Exposed Women Currently Using Efficient and Inefficient Contraceptive Methods by Urban/Rural Residence: WFS Countries**

	EFFICIENT METHODS**			INEFFICIENT METHODS**		
	Use Rate		Ratio	Use Rate		Ratio
COUNTRY	Urban	Rural	U/R	Urban	Rural	U/R
ASIA AND THE PACIFIC						
Bangladesh	22	6	3.67	5	4	1.25
Fiji	50	42	1.19	8	7	1.14
Indonesia	30	34	0.88	11	4	2.75
Jordan	33	9	3.67	15	4	3.75
Korea, Rep. of	7	30	1.10	11	33	1.57
Malaysia	41	26	1.58	15	10	1.50
Nepal	22	3	7.33	0	0	0.00
Pakistan	14	3	4.67	5	1	5.00
Philippines	31	16	1.94	28	25	1.12
Sri Lanka	29	23	1.26	18	15	1.20
Thailand	55	40	1.37	5	4	1.25
Regional Average			2.60			1.87
LATIN AMERICA AND THE CARIBBEAN						
Colombia	47	23	2.04	16	13	1.23
Costa Rica	68	63	1.09	13	13	1.00
Dominican Republic	46	26	1.77	8	7	1.14
Guyana	30	31	0.97	12	7	1.71
Jamaica	50	41	1.22	3	3	1.00
Mexico	45	14	3.21	12	7	1.71
Panama	64	44	1.45	8	12	0.67
Peru	21	3	7.00	34	13	2.62
Regional Average			2.34			1.38
Overall Average			2.45			1.66

*Not available for Kenya. The percentages were standardized for age using the age distribution of the Fiji respondent.

**Contraceptive methods are grouped into two types: *efficient* (male and female sterilization, pill, IUD, injection, condom, and "other female scientific") and *inefficient* (withdrawal, rhythm, douche, country-specific methods, and "method not stated").

Source: Lightbourne, 1980, Table 28, pp. 64-65.

to rely on efficient methods as are rural women. They are 2.75 times more likely to use inefficient methods.

In six countries, the difference in urban/rural contraceptive use is largely due to greater access to modern contraceptives among urban women. The difference in use of inefficient methods is modest by comparison. For all countries, the urban use of inefficient methods is only two-thirds higher than in rural areas, while the use of efficient methods is, on the average, 1.5 times higher.

Contraceptive Use by Women's Employment Status

Current contraceptive use data are available by women's employment status for six of the published reports. The relationship between paid employment and fertility-related behavior is of interest in developing countries because industrialization often brings more women into certain sectors of the work force and this may exert a potential downward influence on fertility levels.

Table 7. Percent of Exposed Women Currently Using Contraception by Employment Status: Selected WFS Countries

COUNTRY	Percent Using Contraception: Observed Rate	Percent Using Contraception: Standardized* Rate	Ratio Working/Non-working: Observed Rate	Ratio Working/Non-working: Standardized Rate
Costa Rica				
Working	81.2	79.6		
Non-working	76.6	74.6	1.06	1.07
Jordan				
Working	39.0	41.7		
Non-working	36.9	38.8	1.06	1.08
Korea, Rep. of				
Working	46.9	42.5		
Non-working	44.7	43.8	1.05	0.97
Panama**				
Working	71.6	72.4		
Non-working	62.2	61.8	1.15	1.17
Peru				
Working	36.6	36.6		
Non-working	45.3	45.6	0.81	0.80
Philippines				
Working	51.6	51.1		
Non-working	44.7	44.7	1.16	1.14

*Adjusted for current age and number of living children using the Philippines as the standard population.
**Women aged 20-49 years only. Women aged 15-19 years not interviewed.
Source: WFS First Country Reports, Table 4.4.5.

The definition of labor force participation is problematic in most developing countries because of the existence of a large informal sector of the economy. The female labor force is even more difficult to define because of cultural differences in whether work usually performed by women is considered "employment," and also, in the social acceptability of the idea of women working outside the home. The WFS data on the respondents' pattern of employment must be examined realizing that they reflect these cultural interpretations and biases.

While the relationship between the level of fertility and employment is usually negative, the nature of that relationship has not been well defined. For example, it is not clear whether working women have fewer children because they prefer to work or whether the fact that they have fewer children makes it easier to have a job.

Because contraception is the primary means to control fertility, the existence of a relationship between contraceptive use and employment status is not surprising. In the United States in 1976, women in the labor force were slightly more likely to be using contraceptives than other women, 69.9 to 65.9 percent, respectively.[15] The KAP surveys in the 1960s and early 1970s also showed that working women were somewhat more likely to be practicing contraception.[16] In the six WFS countries included here, the results are mixed, both before and after adjusting for age and the number of living children (see Table 7). In Costa Rica, Jordan, and Korea the difference in contraceptive use between working and non-working women is negligible. In the Philippines and Panama, use among working women is 14 and 17 percent higher, respectively, than among non-working women. In Peru, women who are employed use contraception at a rate of 20 pecent lower than non-working women.

In these six countries, employment status is not directly associated with contraceptive use levels. Because the labor force is comprised of women from different education, economic, and residence categories in different countries, it is difficult to separate the effects of these other factors from that of employment. In a recent United Nations' study, researchers concluded that education accounted for most of the difference in contraceptive use by employment status in the WFS countries.[17]

Summary and Implications

The data reviewed in this report provide evidence of the rapidity with which knowledge and use of modern contraceptives have spread through many regions of the developing world. In less than four decades since the end of the second World War in 1945 and indeed in the less than two decades since the introduction of family planning programs in developing countries—awareness and use of modern contraceptive methods have risen from near insignificance to levels that in some countries approach those observed in the developed world. This is a remarkable occurrence since these methods, the result of recent scientific and technological breakthroughs, only began to be widely diffused in the developed countries since the 1960s. An emerging world-wide concern with the detrimental consequences of rapid population growth, growing concern about the impact of high fertility on maternal and child health, modernization induced by social and economic development, and increased international cooperation are the main factors that account for the accelerated adoption of the new technologically innovative contraceptive methods in the developing countries.

According to the data collected in 19 of the 20 national fertility surveys reviewed in this report, three-quarters or more of the ever-married women know about contraception. Nepal is the exception. Knowledge of modern contraceptive methods is more common than knowledge of traditional methods. Depending on which country is considered, among modern methods the oral contraceptive is best known, followed by the IUD and sterilization. In many countries, these methods are as well known in rural as urban areas, and equally recognized by women of widely varied educational backgrounds.

Levels of ever-use and current use of contraception tend to be positively associated: the higher the level of ever-use the higher the current level of use. Current use levels among currently exposed women exhibit a wide range of variability. Nepal, not surprisingly, is the country with the lowest percentage of exposed women practicing contraception—only three percent are current users. The highest levels were recorded in Costa Rica (78 percent) and Panama (65 percent). In all but four of the 20 countries, 37 percent or more of exposed women were contraceptive users. No regional patterns of current use are evident since there is considerable overlap among the major regions, although Latin American and Caribbean countries overall tend to have higher levels. Countries in South Asia and Kenya—the only African country included in this review—have the lowest levels of current use. One exception to this generalization is Sri Lanka.

Current users of contraception generally rely on modern methods. The method most frequently used in a majority of countries is the pill, followed by the IUD and sterilization. In Indonesia over half of all current users depend on the pill. The only country exceeding this reliance on a single method is Nepal, which has a higher prevalence of sterilization among the few Nepalese users. Traditional methods are practiced by a majority of current users in only two countries, the Philippines and Peru. In the Philippines, 50 percent of current users, almost equally divided, depend on rhythm and withdrawal. In Peru rhythm is the most popular traditional method followed by douche, withdrawal, and abstinence.

The extent of current use is related to age of women in a curvilinear fashion. The percentage of current users is lower among younger and older women and reaches its highest level in the mid-range of the childbearing years. A strong relationship between parity and contraceptive use can be observed. Contraceptive use tends to increase with number of living children although the relationship is not always consistent. The most noticeable increase in levels of contraceptive use occurs between the second and third child, and rises less at higher parities. Some of the noted age and parity patterns are a result of higher educational levels among younger women who presumably hold more modern attitudes. These differences may make the young cohorts of women more predisposed to use contraceptives in order to limit their births.

Educational levels and contraceptive use are related in a very straightforward manner: as one increases so does the other. Similarly, women in paid employment practice contraception somewhat more than non-working women. The evidence reviewed in this report generally substantiates what other studies have found. That is, contraceptive use tends to rise among better educated and employed women. The relationship between employment and contraceptive use is not clear, however. Women with smaller families may more readily join the labor force than women who do not limit their family size. The alternative view is that many women use contraceptives in order to enter or remain in the work force.

Finally, contraceptive behavior is somewhat more prevalent among urban than rural women. The prevalence of contraception, however, does not change abruptly from one type of location to another, but rather seems to involve a gradient that is itself related to the characteristics that define the

transition from rural to urban. In the more highly urbanized areas, women generally have more ready access to supplies of modern contraceptives.

In conclusion, the WFS data analyzed here strongly suggest that knowledge and use of contraception have been on the rise and should continue to increase in developing countries in years to come. The combined impact of socioeconomic development and organized family planning programs are putting more and more couples within reach of the means to achieve their desired family size. This by itself is an indication of social change on the broadest scale, since only a generation ago such control over a family's destiny was not thought possible or even feasible among people who today practice contraception routinely.

Appendix

Appendix Table A-1. Selected Demographic, Social, and Economic Characteristics for Countries in the WFS: 1974-78

	Year of WFS Survey	Population Estimate[a,aa] Mid-1976 (Millions)	Surface Area (1000 km^2)[bb]	Birth Rate[b,aa]	Death Rate[b,aa]	Rate of Population Growth[c,aa] (Annual, Percent)	Infant Mortality Rate[d,aa]	Population Under 15 Years[aa] (Percent)	Life Expectancy at Birth[aa] (Years)	Percent Women in Union,[gg] Age 15-19	Urban Population (Percent)[f,aa]	Labor Force in Agriculture[b,cc] (Percent)	Per Capita Gross National[g,aa] Product (U.S. $)	Physical Quality of Life[g,h,dd] Index	Adult Literacy Rate[i,bb,cc] (Total)	(Female)	(Male)	Population per Physician[b,cc]	Population Having Access[b,cc] to Safe Water (Percent)	Government Position on[j,ff] Family Planning	Percent Married Women[gg] Using Contraception, Age 15-49
AFRICA																					
KENYA	1977	138	583	48	15	3.3	119	46	50	33	10	79	240	39	40	–	–	8,840	17	OP-DMR	7
ASIA																					
BANGLADESH	1975	76.1	144	47	20	2.7	153	43	46	34.8[gg]	9	78	110	32	22[cc]	20	44	11,350	53	OP-DMR	8
FIJI	1974	.6	18	29	7	2.2	41	39	70	12.0	38	44	1,150	79	75[cc]	77	85	2,300	69	OP-DMR	40
INDONESIA	1976	134.7	2,027[k]	38	14	2.4	137	44	48	31.0[m]	18	60	240	48	72[m]	59	87	16,430	12	OP-DMR	26[m]
JORDAN	1976	2.8	98	48	13	3.4	97	48	53	28.0	42	28	610	47	70	–	–	2,250	56	NOP-FPAV	22[q]
KOREA, (REP.)	1974	34.8	98	24	7	1.7	47	39	65	3.2	48	45	670	82	88	81	94	1,600	62	OP-DMR	35
MALAYSIA	1974	12.4	330	31	6	2.5	41	43	68	11.3[n]	27	44	860	73	75	58	86	4,350	62	OP-DMR	33[m]
NEPAL	1976	12.9	141	44	20	2.3	152	40	44	61.5	4	93	120	27	13	3	22	38,650	9	OP-DMR	2
PAKISTAN	1976	72.5	804[l]	44	14	3.0	139	46	51	38.0	26	58	170	36	20[cc]	12	43	3,850	29	OP-DMR	5
PHILIPPINES	1978	44.0	300	35	10	2.5	80	43	58	11.0	32	51	410	71	87[o]	–	–	3,150	39	OP-DMR	37
SRI LANKA	1975	14.0	66	26	9	1.7	47	39	68	6.5	22	54	200	82	76[o]	64	86	6,230	20	OP-DMR	32
THAILAND	1977	43.3	514	33	10	2.3	89	45	61	14.4[o]	13	77	380	71	79[o]	70	87	8,370	22	OP-DMR	33
LATIN AMERICA																					
COLOMBIA	1976	23.0	1,140	33	9	2.4	90	44	61	14	64	31	630	72	73	71	75	1,820	64	OP-DMR	42
COSTA RICA	1976	2.0	51	29	5	2.4	38	44	68	13	41	30	1,040	85	84[o]	84	85	1,550	77	OP-DMR	64
DOMINICAN REP.	1976	4.8	49	39	9	3.0	96	48	58	20	47	58	780	64	66	65	68	1,870	55	OP-DMR	31
GUYANA	1975	.8	215	27	7	2.0	50	44	68	25	40	31	540	84	86[cc]	86	86	3,270	–	NOP-FPAV	31
JAMAICA	1975-76	2.1	11	30	7	2.3	20	46	68	23	41	24	1,070	85	87[cc]	87	87	3,510	86	OP-DMR	39
MEXICO	1978	62.3	1,973	42	8	3.4	66	46	65	18	64	34	1,090	75	74[o]	70	78	1,840[hh]	62	OP-DMR	30
PANAMA	1977	1.7	76	32	7	2.6	47	43	66	17	50	30	1,310	79	78	78	79	1,270	79	OP-DMR	54
PERU	1977-78	16.0	1,285	40	11	2.9	80	45	56	16	55	40	800	65	72[cc]	67	90	1,580	47	NOP-FPAV	31

NA = not available

a Based on most recent official country or U.N. estimate: mid-1974 estimate for most countries. Each estimate was updated to mid-1976 by applying the same rate of growth as indicated by population change during part or all of the period since 1970.

b Rates refer to 1976 and were obtained by interpolating the 1970-1975 and 1975-1980 estimates of the U.N. to 1976. The 1970-1975 and 1975-1980 rates were used in the medium variant estimates and projections as assessed by the U.N. in 1973 (U.N., *Selected World Demographic Indicators By Countries, 1950-2000).* The interpolated figures should be considered as rough approximations only.

c Birth rate minus the death rate. Since the rates were based on unrounded birth and death rates, some rates do not exactly equal the difference between the birth and death rates shown because of rounding.

d Annual number of deaths to infants under one year of age per 1,000 births.

e The percentage of women currently 15-19 years of age currently in union (as defined by each country), excluding those currently married but separated.

f The percentage of the total population living in areas defined as urban by each country.

g Data refer to either 1975 or 1976.

h Based on an average of life expectancy at age one, infant mortality, and literacy rates.

i Adult literacy is defined by source bb and cc as the percentage of those 15 or more years of age who are able to read and write. The following exceptions hold:
Source bb: Indonesia and Malaysia, 10 or more years of age.
Data from source bb and cc refer to 1970. The following exceptions hold:
Source bb: Indonesia and Nepal, 1971; Colombia, 1964; Sri Lanka and Costa Rica, 1963.
Source cc: Bangladesh and Peru, most recent estimate.
Data are from source bb unless otherwise indicated.

j The codes used to signify the government position on family planning are as follows:
OP-DMR: Official policy to reduce population growth for demographic reasons; support family planning to implement this policy.
NOP-FPAV: No official policy or statement on family planning or stated policy of non-intervention, services freely available from government centers or private clinics.

k Indonesia—including West Irian.

l Pakistan—excluding Jammu, Kashmir, Junagardh, Manavadar, Gilgit, and Baltisan.

m Indonesia—Java & Bali only.

n Malaysia—includes Peninsular Malaysia only.

o Excluding estimated adjustments for underenumeration.

q Jordan—East Bank only.

SOURCES:

aa Population Reference Bureau, *World Population Data Sheet: 1976; 1978.*

bb United Nations, *Demographic Yearbook,* 1976, T.3 and T.41; *1973,* T.33; *1971,* T.1B.

cc World Bank, *World Tables 1980: Social Indicators,* T.3 and T.5.

dd Overseas Development Council. *The United States and World Development: Agenda 1979.* T.A-4.

ff Population Reference Bureau, *Family Planning and Marriage Data Sheet: 1970-1980.*

gg WFS First Country Reports, Various Tables.

hh WHO *World Health Statistics Annual, 1978,* Vol. III, T.2.1.

Appendix Table A-2. Percent of Ever-married Women Who Have Heard of Contraceptive Methods: WFS Countries*

COUNTRY	Any Method	Any Modern[a] Method	Any Traditional[a] Method
AFRICA			
Kenya[b]	88	84	—
ASIA AND THE PACIFIC			
Bangladesh	82	80	49
Fiji	100	100	87
Indonesia	77	75	34
Jordan	97	97	81
Korea, Rep. of	97	97	68
Malaysia	92	90	61
Nepal	23	22	6
Pakistan	75	75	4
Philippines	94	94	79
Sri Lanka	91	90	56
Thailand	97	96	55
LATIN AMERICA AND THE CARIBBEAN			
Colombia	96	95	74
Costa Rica[c]	100	100	91
Dominican Republic	98	98	75
Guyana	95	95	71
Jamaica	98	98	78
Mexico	90	89	63
Panama[c]	99	98	86
Peru	82	78	69

*Unless otherwise indicated, based on women aged under 50 or 15-49 ever-married or in a union. Data taken from M. Vaessen, "Knowledge of Contraceptive Methods," *WFS Comparative Studies*, No. 8 (May 1980), Table 1, p. 16, and standard recode data tapes.

[a]Modern methods include sterilization, pill, injection, IUD, condom, and female vaginal methods (diaphragm, foam, other spermicides). Other methods are counted as traditional.

[b]Based on all women 15-50.

[c]Based on ages 20-49.

—Not available.

Source: United Nations, no date, Table 1, pp. 6-7.

Appendix Table A-3. Levels of Knowledge, Ever Use, and Current Use of Contraception Among Currently Married Women and Exposed Women: WFS Countries

COUNTRY	CURRENTLY MARRIED WOMEN[a]					EXPOSED WOMEN[a]	
	Number	Know a Method (1)	Percent Used a Method (2)	Currently Using (3)	Ratio of (3) to (2)	Number	Percent Using
AFRICA							
Kenya	—	—	—	—		4217	9
ASIA AND THE PACIFIC							
Bangladesh	5762	83	15	8	53	4645	10
Fiji	4658[c]	100[b]	69	40	57	3314	52
Indonesia	7880	80	38	26	68	5638	37
Jordan	3458	97	46	25	54	2337	37
Korea, Rep. of	5062	98	59	35	59	3866	46
Malaysia	5811[c]	92[b]	50	33	66	4487	42
Nepal	5502[c]	22[b]	4	2	50	4325	3
Pakistan	4667	75	10	5	50	3334	7
Philippines	8866[c]	94[b]	58	36	62	6684	48
Sri Lanka	6159	92	45	32	71	4709	41
Thailand	3517	97	48	33	68	2569	45
LATIN AMERICA AND THE CARIBBEAN							
Colombia	2827	96	62	43	69	2323	52
Costa Rica	2699[cd]	100[b]	84	64	76	2222	78
Dominican Republic	1842[c]	97[b]	49	31	63	1378	41
Guyana	3216	96	55	32	58	2735	38
Jamaica	2302[c]	98	66	38	58	1939	45
Mexico	5659[c]	90	47	30	64	4107	42
Panama	2723[d]	99	75	54	72	2257	65
Peru	5060	82	50	31	62	3853	41

[a]For currently married women, percentages have been calculated based on women currently married or in a union, aged 15-49 years unless otherwise specified. For exposed women, percentages have been calculated based on women aged under 50 years, married or in a union, excluding those who are currently pregnant or infecund (but including those sterilized for contraceptive purposes), unless otherwise specified.

[b]Percentage has been calculated on the basis of ever-married women.

[c]Includes currently pregnant women who are not currently married, if any.

[d]For age group 20-49.

—Not available.

Source: United Nations, no date, Table 5, pp. 15-21. (Unless otherwise stated, data taken from the World Fertility Survey First Country Reports and/or standard recode data tapes.)

Appendix Table A-4. Percent of Exposed Women Currently Using Contraception by Age of Woman: WFS Countries

COUNTRY	Total Unstandardized	Total Standardized[a]	Age of Woman <20	20-24	25-29	30-34	35-39	40-44	45+
AFRICA									
Kenya	9	10	3	7	8	13	9	13	12
ASIA AND THE PACIFIC									
Bangladesh	10	11	4	9	9	14	17	11	8
Fiji	52	52	29	42	49	57	59	62	59
Indonesia	37	38	16	33	40	43	42	43	36
Jordan	37	38	13	25	37	44	46	48	41
Korea, Rep. of	46	41	18	19	36	51	60	52	45
Malaysia	42	42	21	37	48	46	43	43	34
Nepal	3	3	0	1	2	5	6	4	5
Pakistan	7	9	0	3	7	9	13	11	17
Philippines	48	46	23	40	49	52	54	48	40
Sri Lanka	41	40	16	26	37	49	48	48	42
Thailand	45	45	23	39	48	52	50	46	40
LATIN AMERICA AND THE CARIBBEAN									
Colombia	52	52	38	52	56	65	53	45	31
Costa Rica	79[b]	78[c]	—	77	79	82	80	77	64
Dominican Republic	42	42	20	37	51	51	45	35	27
Guyana	38	39	24	32	40	48	44	39	32
Jamaica	45	46	37	45	49	57	48	38	32
Mexico	42	41	21	36	48	46	46	39	33
Panama	65[b]	65[c]	—	56	70	66	67	64	65
Peru	41	41	24	38	46	50	42	39	31
Unweighted Average			18	33	40	45	44	40	35

[a]Standardized on the age distribution of exposed women in Colombia.

[b]Ages 20-49.

[c]Standardized on the age distribution of Colombian exposed women, aged 20-49.

—Not available.

Source: United Nations, no date, Table 7a, p. 38. (Unless otherwise stated, data taken from WFS First Country Reports and standard recode data tapes.)

Appendix Table A-5. Percent of Exposed Women Using Specific Contraceptive Methods by Age of Respondent: Selected WFS Countries

COUNTRY AND METHOD	Age of Woman <25	25-34	35-44	45-49
ASIA AND THE PACIFIC				
Fiji				
Pill	12.1	13.9	10.2	6.1
IUD	4.9	6.1	10.2	8.2
Condom	—	—	—	—
Traditional*	8.1	7.4	6.3	2.0
Sterilization**	0.9	12.5	21.6	32.7
All Methods†	29.5	53.1	52.1	53.1
Korea, Rep. of				
Pill	7.6	10.6	13.1	5.8
IUD	3.5	9.8	13.4	11.6
Condom	3.0	8.1	6.6	2.6
Traditional	4.4	9.3	12.9	5.1
Sterilization	0.2	4.6	9.8	20.0
All Methods	18.7	43.5	57.0	45.2
Thailand				
Pill	18.9	22.7	15.2	7.2
IUD	6.8	9.2	8.2	4.8
Condom	0.7	0.5	0.8	0.0
Traditional	4.0	3.7	3.9	8.8
Sterilization	2.3	11.0	17.3	19.2
All Methods	35.2	49.1	48.5	41.6
LATIN AMERICA AND THE CARIBBEAN				
Guyana				
Pill	12.6	15.5	5.9	0.9
IUD	5.6	10.0	4.5	3.7
Condom	4.0	3.1	4.3	0.9
Traditional	4.5	3.4	3.2	5.1
Sterilization	0.3	8.5	21.0	20.0
All Methods	29.3	43.6	41.8	32.1
Mexico				
Pill	16.2	17.4	11.2	7.4
IUD	5.2	10.3	7.5	1.6
Condom	0.3	1.3	1.2	2.1
Traditional	6.3	9.9	12.6	9.5
Sterilization	0.6	3.1	7.5	9.5
All Methods	31.7	47.3	43.6	32.7
Panama	(20-29)	(30-39)	(40-49)	
Pill	33.0	16.2	5.7	
IUD	5.3	4.8	2.4	
Condom	1.8	1.5	1.0	
Traditional	2.8	2.8	3.0	
Sterilization	9.7	30.7	43.6	
All Methods	63.8	66.7	64.5	

*Includes rhythm, withdrawal, abstinence, douche, and other.

**Includes both male and female.

†Includes all of the modern (pill, injection, IUD, condom, diaphragm, foam, jelly, suppositories, and sterilization) as well as all of the traditional methods.

—Not available.

Source: WFS First Country Reports, Table 4.4.1 except Fiji (H7).

Appendix Table A-6. Percent of Exposed Women Currently Using Contraception by Number of Living Children: WFS Countries

COUNTRY	Total Unstandardized	Total Standardized[a]	Number of Living Children 0	1	2	3	4	5	6	7+
AFRICA										
Kenya	9	8	2	4	8	10	10	13	12	15
ASIA AND THE PACIFIC										
Bangladesh	10	10	3	7	8	11	12	13	15	16
Fiji	56	51	10	39	52	56	66	69	72	75
Indonesia	37	36	4	27	40	46	43	48	51	54
Jordan	37	32	7	27	37	36	36	43	45	43
Korea, Rep. of	45	39	16	17	47	54	57	54	49	37
Malaysia	42	38	10	37	43	45	47	45	45	46
Nepal	3	4	0	1	2	3	5	9	9	11
Pakistan	7	7	0	2	4	7	9	12	14	16
Philippines	48	42	6	36	49	55	54	52	51	48
Sri Lanka	41	38	4	26	41	48	53	53	55	47
Thailand	45	42	10	38	47	53	58	52	45	43
LATIN AMERICA AND THE CARIBBEAN										
Colombia	52	49	24	50	60	57	59	56	47	45
Costa Rica	78	73	39	75	82	83	80	82	78	76
Dominican Republic[b]	42	39	15	30	44	51	50	57	41	41
Guyana	38	36	22	26	37	39	38	46	49	47
Jamaica	45	45	32	34	50	45	52	57	55	51
Mexico	42	39	13	38	49	47	46	41	43	39
Panama	65	61	31	58	70	73	71	67	69	58
Peru	41	38	16	36	49	48	43	38	39	36
Unweighted Average			13	30	41	43	44	45	44	42

[a]Standardized on the distribution of exposed Bangladeshi women by number of living children.

[b]The percentage using differs slightly from that shown in other tables because of small discrepancies in the source tables and because of rounding errors.

Source: United Nations, no date, Table 9, p. 45. (Unless otherwise stated, data taken from WFS First Country Reports and standard recode data tapes.)

Appendix Table A-7. Percent of Exposed Women Currently Using Contraception Urban/Rural Residence: WFS Countries

COUNTRY	RESIDENCE					
	Urban			Rural		
	Effi-cient	Ineffi-cient	Total	Effi-cient	Ineffi-cient	Total
AFRICA						
Kenya*	—	—	18	—	—	9
ASIA AND THE PACIFIC						
Bangladesh	19	4	23	5	4	9
Fiji	50	8	58	42	7	49
Indonesia	29	11	40	33	4	37
Jordan	33	15	48	8	4	12
Korea, Rep. of	36	12	48	34	8	42
Malaysia	41	16	57	26	10	36
Nepal	21	0	21	3	0	3
Pakistan	13	5	18	3	1	4
Philippines	32	28	60	16	26	42
Sri Lanka	30	19	49	23	16	39
Thailand	54	5	59	39	4	43
LATIN AMERICA AND THE CARIBBEAN						
Colombia	46	16	62	21	13	34
Costa Rica**	68	13	81	62	13	75
Dominican Republic	44	8	52	24	7	31
Guyana	28	12	40	29	6	35
Jamaica	49	3	52	39	2	41
Mexico	45	12	57	13	7	20
Panama**	64	8	72	44	11	55
Peru	21	34	55	3	13	16

*Base population excludes women practicing post-partum and terminal abstinence.
**Women aged 20-49 years. Women aged 15-19 years not interviewed.
—Not available.
Sources: Kenya: United Nations, no date, Table 17, pp. 85-87. All Other Countries: Lightbourne, 1980, Table 28, pp. 64-65.

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1 The classic outline of the intermediate variables was provided by Kingsley Davis and Judith Blake in "Social Structure and Fertility: An Analytic Framework," *Economic Development and Cultural Change*, 4, No. 4 (July 1956) pp. 211-235; see also John Bongaarts. "A Framework for Analyzing the Proximate Determinants of Fertility," *Population and Development Review*, 4, No. 1 (March 1978) pp. 105-132.

2 The first report in this series surveys how marriage patterns may affect fertility. Jane S. Durch, "Nuptiality Patterns in Developing Countries: Implications for Fertility," *Reports on the World Fertility Survey*, No. 1 (Washington, D.C.: Population Reference Bureau, December 1980).

3 The second report in this series review these issues. Mary Mederios Kent, "Breast-feeding in the Developing World: Current Patterns and Implications for Future Trends," *Reports on the World Fertility Survey*, No. 2 (Washington, D.C.: Population Reference Bureau, June 1981).

4 An important data source on abortion is Christopher Tietze. *Induced Abortion: A World Review, 1981* (Fourth Edition) (New York, NY: The Population Council, 1981)

5 Durch, Jane. "Nuptiality," pp. 5-8; Mary Mederios Kent. "Breast-feeding," pp. 8-10.

6 Leridon, Henry. *Human Fertility—the Basic Components* (Chicago, Il: University of Chicago Press, 1977) p. 125.

7 Fiji did not use the spontaneous approach, but rather used the probing approach directly. The Fijian questionnaire excluded mention of the douche. In Pakistan only the open, spontaneous question was used so that the data from this country are not strictly comparable with that of other countries. In addition, other countries excluded the following contraceptives from their probes: Bangladesh (injection), Jordan (injection), Malaysia (douche), Nepal (other female modern, injection, douche, rhythm, and withdrawal), Philippines (injection), Dominican Republic (abstinence), and Mexico (abstinence). It is likely that knowledge of the omitted methods, at least in some countries, may have been reported under the probe regarding knowledge of the residual category "other" methods.

8 These findings are influenced to some extent by the disproportionate effect of small percentage changes at low levels of ever and current use, as compared to the estimated effect of similar percentage changes at much higher use levels.

9 The very high estimate of current use of sterilization in Nepal is in all likelihood partly a statistical artifact produced by not probing for certain methods.

10 Limitations arising from sample sizes restrict the analysis of age patterns of use for specific methods to only those contraceptives which are most commonly used. For a more detailed discussion of age patterns of use for specific methods made on the basis of median age of users see Ann Larson, *Patterns of Contraceptive Use Around the World* (Washington, D.C.: Population Reference Bureau, July 1981) pp. 12-14.

11 The distinction between primary and secondary follow the country's definition of the number of years required to complete primary schooling. The range is surprisingly large: from four years in Thailand and Pakistan to ten years in Nepal. Caution should also be used in interpreting the estimates by educational level since dropout rates from primary school are known to be high. In thirteen of the countries at least two-thirds of the women who ever attended primary school failed to complete it. Women with less than four years of education in Jamaica, Guyana, and Panama and less than three years in Costa Rica were included in the tabulations from which the rates were derived in the no education group. Information on countries' definitions of educational levels and on the distribution of women by years of schooling were obtained from Susheela Singh, "Background Characteristics Used in WFS Surveys," *Comparative Studies*, No. 4 (London, England: World Fertility Survey, 1980).

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Family Size Preferences: Evidence from the World Fertility Surveys

By Mary Mederios Kent
and
Ann Larson

Reports on the World Fertility Survey (4)

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Summary of Findings

This report examines family size preferences in 23 developing countries, based on the World Fertility Surveys. Two measures of preference are used: the total number of children wanted and the desire for no more children. The countries represented include 12 in Asia and the Pacific, ten in Latin America and the Caribbean, and one in Africa, encompassing considerable regional diversity.

The results indicate that:

- Women in the majority of these countries want between three and four children. The range of desired family size is substantial, extending from three for Turkey to seven for Kenya.
- The number of children women want tends to increase with the number they already have, but it is not clear that this indicates a deliberate implementation of their preferences. Less educated and rural women tend to want, and have, larger families, and in some countries religious or ethnic group affiliation has an effect on average number of children desired.
- In most countries, about 50 percent of the women wanted to avoid future births by the time they had three living children. This desire was particularly strong among women aged 35 or older.
- The desire for future children may also be affected by the sex composition of children already born. Women in Korea and Nepal expressed a strong preference for sons, but in most countries a balanced sex ratio was favored.
- Women who wanted no more children were much more likely to be using contraception than other women, suggesting that they were attempting to implement their fertility desires. Also, urban/rural and educational differentials were much smaller among contraceptive users who wanted no more children.

Reports on the World Fertility Survey, a series of publications dealing with fertility and family planning policy issues in the developing countries, is published by the Population Reference Bureau with the support of the Demography Division of the Office of Population, U.S. Agency for International Development. These reports are being prepared under contract AID/DSPE-C-0024, "Compilation and Analysis of Population Data."

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Fertility Size Preferences: Evidence from the World Fertility Surveys

April 1982
Mary Mederios Kent, Research Associate
and Ann Larson, Research Associate
Population Reference Bureau

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Preface

Family Size Preferences: Evidence from the World Fertility Surveys is the fourth report in a series based on data resulting from the World Fertility Survey (WFS). Begun in 1972 under the auspices of the International Statistical Institute and with major support from the International Union for the Scientific Study of Population, the United Nations' Fund for Population Activities and the United States Agency for International Development, the World Fertility Survey is an international research effort to encourage and assist countries in collecting and analyzing basic demographic data and more specific data on national patterns of fertility behavior.

The data are collected by trained interviewers, almost all women, who administer the WFS "core questionnaire" modified and translated for local use. An average survey involves detailed interviews with about 5,000 women. Tabulation of survey results has been standardized, facilitating international comparisons.

The first survey was conducted in Fiji in 1974. Within the next few years over 40 developing countries are expected to complete the survey and publish a First Country Report which provides some analysis of the data and a large number of tabulations. This Population Reference Bureau series is based primarily on the data presented in these First Country Reports and other WFS publications.

Figure 1. World Fertility Survey Countries Included in This Report

Introduction

How many children do couples want? The answers will reflect the value attached to children within a given cultural setting as well as individual considerations. This value would also be manifested in the actual number of children couples have. The family size preferences of individuals and couples provide one of the complex of factors which govern fertility. If these preferences are changing, this could affect the magnitude and tempo of future population growth. This report will examine the information about family size preferences for 23 developing countries in which the current high levels of fertility have contributed to rapid increases in the population. For these countries, the current levels and trends in the desired number of children assume a particular importance.

What determines the cultural norms which influence individual decisions about family size? Part of the explanation may be economic. In traditional, rural societies, children are likely to contribute to the production of food and goods for the household, and large families may be advantageous. However, where farms are small, the labor of children may not be necessary and they may consume much more than they produce. In more formal economic settings, particularly where the labor force consists of more educated and skilled workers, children are also likely to provide only superfluous labor. They usually remain dependent for a prolonged period during which they may attend school, or if not, perform marginally useful, low income jobs. In this setting children may be perceived as being more costly, and, the higher the standard of living and educational level, the higher the cost of raising each child. As couples realize that the number of children they have affects the proportion of their resources which can be spent on each family member, the number of children desired may shift downward.

Other explanations of family size norms are rooted in cultural beliefs which, although they may have arisen as a means to insure a society's survival, may be quite unrelated to economic factors. In some countries, having many children is viewed as a form of "immortality," a source of status in the community, proof of virility, or a cement to a marriage. Childless couples are often considered to be selfish and "incomplete."

The role of individual preferences in determining completed family size is not clearly understood. Family size preferences can affect the actual number of births only to the extent that women within a given socioeconomic context can control their fertility. Fertility levels are governed by natural biological limits and modified by social laws and customs such as the age at marriage, duration of breast-feeding, and the practice of contraception and abortion.*

The most conscious and effective means of attaining a specific number of children is birth control, but its practice is most subject to variation, constrained not only by social sanctions against its use, but often by a lack of knowledge and availability of efficient methods. Even where contraceptives are well known and easily obtained, couples may not be completely successful in limiting births to a specific number. Most contraceptive methods require faithful application on the part of the individual. Many factors may intervene to interrupt its continued use or to block its initiation—including social, religious, and even psychological constraints. In the United States, for example, a 1970 survey estimated that 2.65 million babies born between 1966 and 1970 were unplanned, although since then the advent of oral contraceptives is thought to have reduced unwanted births substantially.[1] Thus, while preferences do play a part in fertility behavior their importance generally depends upon the ability of the couple to successfully practice family planning.

Determining the preferred family size among population groups and sub-groups presents practical and conceptual problems. Not everyone may have considered the matter, or they may have only vague ideas about wanting a "large" or "small" family. Questions about family size preferences have been included in fertility surveys in the United States since the 1930s. This long experience has provided researchers with the opportunity to refine measures of desired family size, to monitor changes in preferences over time, and most importantly, to investigate the relationship between the number of children couples say they want and the number they subsequently have. However, the value of survey data on desired family size in the prediction of births which occurred in the 1970s is still subject to debate. While women's expectations as expressed in the surveys in fact were close to actual fertility during the period, it remains unclear whether this was the result of rational implementation of family size desires, whether the stated desires reflected rather than determined actual fertility, or whether the closeness of the two measures was simply fortuitous.[2] Studies which followed individual women

*With the exception of abortion, earlier reports in this series cover these topics. See page 44 for full references.

over a five to ten year period concluded that while women's own birth expectations successfully predicted the average family size for their peers, they could not be used to predict their own family size.[3]

One difficulty in asking women how many children they want or expect is that individuals may change their minds, although there is evidence that family size ideals are developed fairly early in life. One study of school children found that nine-year-olds had definite ideas about how many children they would like,[4] but could not predict whether those ideas remain constant. Also, there may be a difference between the number of children an individual considers ideal for which is perceived as the "average family" and the number believed best for his or her own situation or temperament. In some surveys in the United States, respondents were asked to differentiate the number of children they (1) thought were "ideal," (2) desired, and (3) expected to have—with mixed results.[5]

While ideal family size may remain constant, individual decisions about a couple's own family size may be changed at different points in the family cycle—marriage, the birth of the first, second and third child, etc. The experience of having a first child or a change in the economic situation may cause a couple to alter previous plans either consciously or simply by deferring action.

Beginning in the 1960s concern about rapid population growth prompted the administration of surveys in a number of developing countries to measure the knowledge of, attitudes toward, and practice of contraception and family size preferences. One common finding of these surveys was that many women who stated that they wanted to limit their families were not doing anything about it. Since modern contraceptives were not easily available in most of the areas surveyed, these women were considered by some to represent a group urgently in need of family planning services. Critics of the surveys have argued that too much emphasis has been placed on the responses to questions about family size desires. To non-literate women with little information about family planning, or who consider their own fertility to be controlled by fate, they argue, the concept of a preferred family size may be meaningless.[6]

Even if women do have definite ideas about the number of children they would like, their wishes may be superceded by those of their husbands, other family members, or the community. Some women may not want to admit they wanted fewer children than they have. Also, in areas with very high infant and child mortality, women may be "adjusting" their family size preference to allow for the possible death of one or more children before they reach adulthood. Thus, there has been considerable debate about how appropriate family size preference measures may be for developing countries and the importance which can be attached to them in predicting future fertility. Nevertheless, questions about family size ideals and preferences have been included in some 700 surveys around the world, a testimony to the interest and hopes of social scientists in expanding the pool of knowledge about this topic. These surveys have been successful in eliciting numerical responses even from some of the most remote and "fatalistic" people in Africa.[7]

A summary of the mean desired family size in the World Fertility Survey (WFS) and selected other countries is shown in Table 1,[8] exhibiting quite a wide range, from only 2.1 for Hungary to 6.8 for Kenya, and an obvious division among the developing and developed countries. Women in Japan and the low-fertility European countries included in the table want between two and three children, while in the majority of the developing countries women want around four children. In only four countries women show a desire for five or more children. Also, in the 23 countries analyzed in this report about one-half of the married survey respondents stated that they wanted no more children.

Focus of Analysis

This report will use published reports on the World Fertility Survey for 23 countries to examine the preferred family size and the desire to stop childbearing among these countries and for sub-populations within countries. To some extent the implementation of these preferences, that is, the attempt by women to translate their desire into reality by controlling their fertility, can also be assessed. This is accomplished by comparing the number of children desired with the number already born on an aggregate level. Measuring action to cease childbearing can be attempted at least by examining current contraceptive use.

Background-Data Sources

World Fertility Survey results are available in published form from twelve countries in Asia and the Pacific, ten in Latin America and the Caribbean, and one African country (see Figure 1). In addition to considerable geographic diversity, these 23 developing countries represent a rich variety of cultural, linguistic, and religious groups. The most

Table 1. Mean Number of Children Desired: Selected Countries

COUNTRY	Mean Number Desired
Kenya	6.8
Jordan	6.3
Sierra Leone	6.1
Paraguay	5.1
Costa Rica	4.7
Dominican Republic	4.6
Guyana	4.6
Mexico	4.4
Philippines	4.4
Malaysia	4.4
Panama	4.2
Pakistan	4.2
Fiji	4.2
Venezuela	4.2
Bangladesh	4.1
Colombia	4.1
Indonesia	4.1
Jamaica	4.0
Nepal	3.9
Peru	3.8
Sri Lanka	3.8
Thailand	3.7
Haiti	3.6
Korea, Rep. of	3.2
New Zealand	3.0
Turkey	3.0
Spain	2.8
Taiwan	2.8
Great Britain	2.6
Czechoslovakia	2.4
Belgium	2.3
Japan	2.2
Hungary	2.1

Sources: See Footnote 8.

homogeneous group consists of the Latin American and Caribbean countries. These include Colombia, Costa Rica, the Dominican Republic, Guyana, Jamaica, Mexico, Panama, Paraguay, Peru, and Venezuela. Except for Jamaica and Guyana, this regional group shares a common Spanish linguistic, religious, and colonial heritage, diluted in various degrees by the indigenous culture.

The Asian countries, on the other hand, embrace markedly different cultural characteristics. They can best be grouped by geographic location: Jordan* and Turkey in Southwest Asia; Bangladesh, Nepal, Pakistan, and Sri Lanka in South Asia; Indonesia,** Malaysia,*** the Philippines, and Thailand in Southeast Asia; Fiji in the Pacific, and the Republic of Korea in East Asia. The populations of Jordan, Bangladesh, Pakistan, Turkey, Indonesia, and a large part of Malaysia are predominantly Moslem. The people of other countries in the region are Hindu, Buddhist, Christian, and Confucion.

Kenya's population consists of numerous ethnic groups, two of which (Kikuyu and Luo) predominate. Although the influence of Christianity is widespread, various ethnic traditions and allegiances are highly valued among this overwhelmingly rural population.

Appendix Table A-1 compares these countries on a number of demographic, economic, and health-related measures, revealing great disparities among them. The infant mortality rate ranges from 20 deaths per 1,000 births for Jamaica to 153 deaths per 1,000 for Bangladesh. Only four percent of Nepal's population is urban, compared to about 64 percent in Mexico and Colombia. The Gross National Product (GNP) per capita is highest in Venezuela at U.S. $2,570 and lowest in Bangladesh at U.S. $110 per year.

Measures

The two measures of family size preference to be used in this report are the total number of children desired and the percent of women who want no more children. These two measures capture different aspects of family size preferences. The question of how many children are desired was meant to reflect a personal ideal which is largely culturally determined and in part represents the prevailing attitudes among a woman's family and social network. It is assumed to be a goal towards which a couple's childbearing behavior is directed. The desire for more children also reflects cultural norms concerning family size, but with several differences. It is not affected by rationalization of previous births as the first question could be, because it specifically refers to the future. The response is more likely to be modified by a couple's individual situation regarding, for example, housing, health, and finances, or by whether they have experienced a child's death or attained the sex composition they

*East Bank only.
**Java and Bali only.
***West (Peninsular) Malaysia only.

prefer among their children. The theoretical implications for future behavior of women who want no more children are clear: if they are fecund* they must take preventative action to avoid future pregnancies, and thus, become prime candidates for family planning services.

Number of Children Desired

The first measure is derived from the query to all ever-married women, "If you could choose exactly the number of children to have in your whole life, how many children would that be?" The actual number named or the mean number wanted are presented for all ever-married or currently married women who gave a numeric response to the question.

Perhaps for reasons suggested in the introduction, not all women were willing to give a definite limit to the number of children wanted, offering instead responses such as "as many as God brings," or "as many as possible." The percent of ever-married women who failed to give a numeric response was minimal—less than three percent in the majority of countries. However, in two countries, Kenya and Bangladesh, 19 and 30 percent, respectively, of the ever-married respondents gave non-numeric answers. This suggests that the concept of a preferred number of children may have less meaning to these women or, if ultimate family size is thought to be determined by God or fate, it may be considered presumptuous to state a limit. Clearly the numeric results from Kenya and Bangladesh are less representative of the total sample than in the other countries.

Another problem lies in the fact that women were forced to chose one number when a range, say three to four, might be equally acceptable to them. Some surveys have used special scales allowing more breadth to responses to obtain the range of underlying preferences.[9] While the desired number of children recorded in the WFS may represent an upper limit, or the middle of a range of desired family size, it is interpreted as the exact number wanted.

An often cited limitation of the desired family size measure is that women may simply rationalize their responses according to the number of children they already have. Women may be unwilling to admit that they have been unsuccessful in limiting their family size or to imply they did not want any of the children already born.

Variations in the interviewers instructions and in the translations of the questions also produced some inconsistencies. In Jordan, for example, the interviewers were told that non-numerical responses were unacceptable, so it is impossible to infer what percentage of women would have preferred to report something other than a number. On the other hand, interviewers in Sri Lanka were trained to accept and record any answer, and yet the percent of non-numerical responses is very small. In almost all the surveys interviewers urged women reluctant to state a number to think the question over and give what she thought was the best family size for herself. In Pakistan, the question was modified, making it a more generalized ideal family size rather than a personal preference. Women were asked "In your opinion, how many children should a married couple have?" In Fiji, the questions excluded unmarried and infecund women, and those uncertain about whether they wanted more children, accounting for 18 percent of the sample. Also, the number desired was calculated somewhat differently according to whether women wanted their last birth or more children.[10] The responses for Fiji and Pakistan, therefore, are not really comparable to those of the other countries.

Desire for More Children

The second measure was based on responses to the question, "Do you want to have a(nother) child sometime?", asked of currently married, fecund women. Women who had themselves or whose husbands had been sterilized for contraceptive purposes were not asked, but were included in the results as if they had responded negatively. All other respondents were excluded from both the question and the published results of this measure.

This measure suffers from several problems of reliability and validity. There is evidence that women in some countries misunderstood the question. In Bangladesh, the question was actually mistranslated as, "Do you want another child soon?," making these responses clearly invalid, but even with correct wording, some women apparently interpreted the question as referring to the near future.[11] Infecund, sterilized and unmarried women, who may have wanted more children if it were possible, were not asked the question at all. This, along with the conceptual misinterpretations mentioned above, may have overestimated the percentage of women not wanting more children.

*Physically capable of bearing children.

In addition, responses must be considered as opinions subject to change. The death of a child, marital disruption, or a change in finances could prompt women to change their minds one way or the other. There are obvious problems in accepting a desire for no more children as a statement of intended or expected behavior. A wife's opinion may be meaningless compared to those of her husband or in-laws, for example. Because of ignorance, or for religious, psychological, and other reasons, she may never even attempt to translate her wish into reality.

Analysis

Number of Children Desired

In most WFS countries, the mean number of children desired was approximately four, and the popularity of other family sizes varied substantially among the countries as shown in Appendix Table A-2. In 13 countries, four children was the most frequently desired family size. In eight other countries, three children was the most popular response. Latin American/Caribbean and Asian countries are represented equally in both these categories. Turkey is the only country in which the largest proportion of women desire only two children.

The percent distribution of women by number of children desired also reveals the predominent dislike of remaining childless or of having only one child. Jamaica has the highest percentage of women stating they prefer to have no children, and it is very small 1.9 percent. In no country is the proportion desiring one child over four percent.

The curve illustrating desired family size is similar for most countries—rising sharply after one child, peaking between two and four children and then declining. But there are some differences among countries. In Bangladesh, Malaysia, Korea, Pakistan, and Turkey, the peak of the curve is more pronounced because a particular number of children is mentioned far more frequently than any other (see Malaysia, Figure 2). Five other Asian countries, Fiji, Indonesia, Thailand, Nepal, and Sri Lanka, exhibit a more evenly distributed pattern, but maintain the preference for two to four children. In these countries a stated preference for very large families is as rare as one for very small families (see Sri Lanka, Figure 2). This uniformity suggests that women in these Asian countries may be reflecting widely held societal norms concerning the most desirable family size.

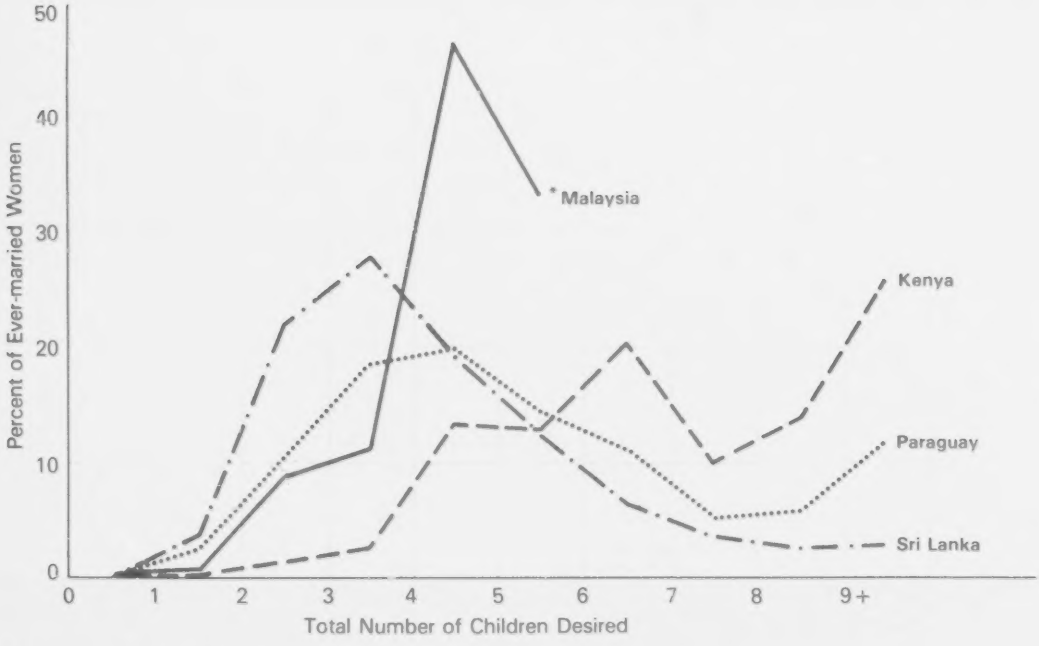
Another pattern illustrates a lower, and sometimes broader, range of most popular family sizes, a gradual decline from five to seven children, then an upturn indicating that a relatively large proportion of women would choose nine or more children. This pattern is best exemplified in Paraguay, but it is also apparent in Costa Rica, the Dominican Republic, Mexico, Venezuela, Guyana, Colombia, and to a lesser extent the Philippines. Jordan and Kenya are extreme cases because more than 20 percent of the women reported a desired family size of nine or more. This bimodal pattern indicates a range of preferred family sizes centering around three to four children for the majority of women and eight to nine or more children for a much smaller group of women. This may indicate a recent shift toward smaller family size preferences within these predominately Latin American countries or the persistence of a dualism in these societies in which divergent family size norms exist simultaneously. Finally, the lack of a single norm may arise from a greater tendency in some countries to rationalize the stated desired number of children to be consistent with the number already born.

Both age and the number of living children have been shown to color attitudes toward desired family size. Older women and women with more children generally say they want greater numbers of children. The two variables are related because older women have had more years to bear children. Age can affect the desired family size not only because the experience of rearing children may influence women's attitudes, but because earlier generations may have different norms.

The average number of children desired increases in all countries as actual family size grows. This is illustrated in Figure 3 for three countries with high, medium, and low fertility expectations. For Kenya the mean number of children desired is consistently higher than the actual family size. On the average, Kenyan women would like more children than they already have. In the Philippines (and typically in most of the countries) while the increase in desired family size is constant, women with more than five children want fewer than are already born and the difference increases at higher fertility levels. For Turkey, with an overall mean desired family size of only 3.0, the mean varies only slightly among women with different family sizes. Even those with nine or more children apparently would prefer an average of only about four and one-half.

The mean desired family size also increases with the age of the woman.[12] However, this relationship is largely explained by the fact that older women have borne more children. In only two countries,

Figure 2. Percent Distribution of Ever-married Women According to Total Number of Children Desired: Selected WFS Countries



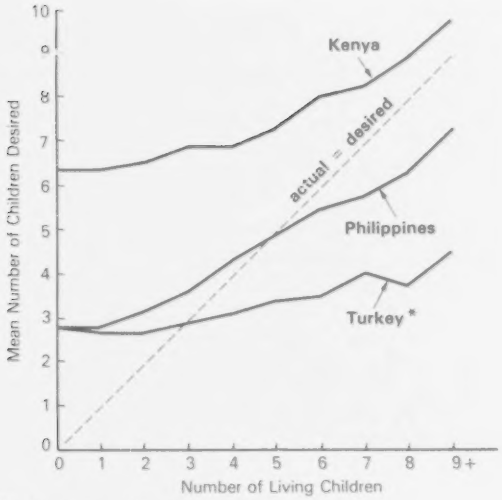
* Refers to 5 or more children desired.
Source: Appendix Table A.2

Kenya and the Dominican Republic, did women over 35 years of age express higher family size preferences than younger women with the same number of children. These figures can neither support nor question the hypothesis that younger women in these developing countries have adopted smaller family size norms because the effects of current fertility cannot be disentangled from current age.

Other demographic variables which influence family size preferences are the age at first marriage and the duration of the marriage, neither of which will be dealt with in this report. These factors are closely associated with both current age and the number of living children and tend to show the same relationship with desired family size. Generally, women who marry young will have had a longer duration of marriage and have borne more children than other women of the same age. Their desired family size tends to be larger also. As with current age, it is not possible to separate the individual effects of these variables using published data.

The strong association of the number of living children with the number desired is fuel for the frequent claim that when respondents are asked for the number of children they consider best for themselves, they merely state the number they actually have.[13] If this criticism is true, it means that desired

Figure 3. Mean Number of Children Desired by Number of Living Children, Ever-married Women: Selected WFS Countries



*Refers to currently married women only.
Source: Appendix Table A-4

family size cannot signal changing attitudes about the appropriate size for a family nor can it be expected to be useful in predicting future fertility. However, published WFS findings from 11 countries show that most women do not report their actual number of children as exactly the number they desire, although this is more common in some countries such as Indonesia, Kenya, and Jordan (see Appendix Table A-3). Previous research in Thailand has shown that while it may occur, rationalization does not invalidate the meaningfulness of the measure.[14]

Background Characteristics

Other factors affecting the preferred family size are socioeconomic and ethnic differentials among groups of women. Such factors are of particular interest because of the rapid and often profound socioeconomic changes which accompany the development process. The preference for small families is encouraged or affected by a wide range of social and economic forces that are involved in that vague but far-reaching concept, modernization. It would follow that within countries women who are in social sectors with the greatest exposure to modern ideas would express the smallest family size preference. Several studies using WFS data have found that rural women and less educated women want more children than their more educated and urban counterparts, but the differences have not been substantial. Also, when considering husband's occupation, another measure of the socioeconomic environment in which women are operating, higher status, professional, and non-agricultural jobs in general are associated with lower desired family size. However, results are not consistent for all countries.[15]

The WFS First Country Reports permit an analysis of the mean number of children desired by education, place of residence, and, for some countries, husband's occupation. These background variables are examined by number of living children.

Residence. Lower family size preferences would be expected in urban areas than in the countryside because urban women have a greater exposure to modernizing forces such as education, the media, and a cash economy which might encourage small families and also raise aspirations for consumer goods. They also may feel their situations are constrained by scarce housing and employment uncertainties.

In 17 of the WFS countries, the mean number of children desired among urban women is 0.5 to 1.5 lower than for rural women. Most of this difference is accounted for by the difference in the number of living children, as revealed by the adjusted figures in Table 2. This naturally occurs because, whether a consequence or an explanation of lower desired numbers of children, fertility is lower in urban areas. However, in Mexico, Malaysia, and Turkey urban women want fewer children than rural women even after adjustments are made for differences in current family size. In Kenya, Jordan, and Venezuela, urban-rural differences are greatest. In rural areas, the adjusted mean number of children desired is one more than in urban areas.

*Table 2. Mean Total Number of Children Desired by Urban/Rural Residence, Currently Married Women: WFS Countries**

COUNTRY	RESIDENCE		Difference	Adjusted**	
	Urban	Rural	R-U)	Urban	Rural
AFRICA					
Kenya	6.1	7.4	1.3	6.3	7.3
	(565)	(4,102)			
ASIA AND THE PACIFIC					
Bangladesh	4.0	4.1	0.1	4.0	4.3
	(343)	(3,563)			
Fiji	3.9	4.3	0.4	4.0	4.2
	(1,425)	(2,528)			
Indonesia	4.3	4.2	−0.1	4.5	4.6
	(1,204)	(6,262)			
Jordan	6.0	7.1	1.1	5.3	6.5
	(2,423)	(1,035)			
Korea, Rep. of	3.0	3.6	0.6	3.1	3.5
	(2,999)	(2,002)			
Malaysia	4.0	4.6	0.6	3.9	4.5
	(1,803)	(3,944)			
Pakistan	3.9	4.3	0.4	3.9	4.3
	(1,201)	(3,323)			
Philippines	4.0	4.7	0.7	4.0	4.2
	(2,830)	(6,023)			
Sri Lanka	3.5	4.0	0.5	3.5	3.8
	(1,136)	(5,011)			
Thailand	3.4	3.7	0.3	3.7	3.7
	(472)	(2,889)			
Turkey	2.8	3.3	0.5	2.9	3.4
	(2,057)	(1,913)			
LATIN AMERICA AND THE CARIBBEAN					
Colombia	3.9	4.5	0.6	3.9	4.1
	(1,782)	(1,024)			
Costa Rica	4.1	5.3	1.2	4.3	4.8
	(1,350)	(1,334)			
Dominican Republic	4.4	5.1	0.7	4.5	4.8
	(841)	(923)			
Guyana	4.3	4.9	0.6	4.5	4.5
	(1,140)	(2,026)			
Jamaica	3.7	4.6	0.9	3.9	4.4
	(1,107)	(1,180)			
Mexico	4.2	4.9	0.7	4.1	4.7
	(3,193)	(2,318)			
Panama	4.0	4.6	0.6	4.2	4.0
	(1,461)	(1,259)			
Paraguay	4.9	5.8	0.9	5.2	5.3
	(1,123)	(1,487)			
Peru***	3.6	4.3	0.7	3.9	4.4
	(11,414)	(6,037)			
Venezuela	4.1	5.0	0.9	4.2	4.5
	(1,847)	(406)			

* Not available for Nepal.

** Adjusted for the number of living children using Fiji as the standard.

*** Sample sizes are weighted.

Sources: WFS First Country Reports, Table 3.3.3.

Table 3. Mean Total Number of Children Desired by Level of Education, Currently Married Women: WFS Countries

COUNTRY	EDUCATIONAL LEVEL							
				Difference	Adjusted*			Difference
	None	Primary	Secondary +	None-Secondary +	None	Primary	Secondary +	None-Secondary +
AFRICA								
Kenya	7.8	6.8	5.6	2.2	7.6	6.7	6.0	1.6
	(2,342)	(2,027)	(291)					
ASIA AND THE PACIFIC								
Bangladesh	4.2	3.9	3.9	0.3	4.3	4.0	4.1	0.2
	(2,852)	(808)	(239)					
Fiji	4.8	4.2	3.1	1.7	4.1	4.2	3.9	0.2
	(739)	(2,698)	(532)					
Indonesia	4.4	4.1	3.9	0.5	4.5	4.6	4.3	0.2
	(3,415)	(3,639)	(386)					
Jordan	7.0	5.3	4.1	2.9	6.2	5.2	3.9	1.3
	(2,340)	(689)	(430)					
Korea, Rep. of	3.8	3.3	2.7	1.1	3.6	3.3	2.8	0.8
	(965)	(2,536)	(1,491)					
Malaysia	5.1	4.3	3.6	1.5	4.5	4.3	3.8	0.7
	(1,064)	(2,536)	(739)					
Nepal	4.0	3.9	—	—	—	—	—	—
	(5,218)	(229)	—					
Pakistan	4.3	3.7	3.2	1.1	4.3	3.7	3.3	1.0
	(4,029)	(309)	(186)					
Philippines	5.7	5.0	4.1	1.6	4.9	4.2	4.0	0.9
	(506)	(2,138)	(6,209)					
Sri Lanka	4.6	4.0	3.2	1.4	4.0	3.8	3.6	0.4
	(1,293)	(2,401)	(2,459)					
Thailand	4.1	3.7	3.1	1.0	3.8	3.7	3.7	0.1
	(579)	(2,524)	(259)					
Turkey	3.3	2.6	2.4	0.9	3.3	2.7	2.0	0.7
	(2,368)	(1,269)	(333)					
LATIN AMERICA AND THE CARIBBEAN								
Colombia	4.9	4.1	3.4	1.5	4.3	3.9	3.7	0.6
	(560)	(1,662)	(579)					
Costa Rica	6.1	4.7	3.6	2.5	4.8	4.6	4.3	0.5
	(542)	(1,448)	(694)					
Dominican Republic	5.4	4.8	4.0	1.4	5.2	4.7	4.6	0.6
	(126)	(1,461)	(177)					
Guyana	5.3	5.1	3.9	1.4	4.4	4.6	4.6	−0.2
	(525)	(1,491)	(1,167)					
Jamaica	5.1	4.3	3.3	1.8	4.5	4.2	3.9	0.6
	(312)	(1,440)	(535)					
Mexico	5.2	4.6	3.4	1.8	4.8	4.4	3.8	1.0
	(1,166)	(3,395)	(949)					
Panama	5.1	4.5	3.7	1.4	4.5	4.2	4.0	0.5
	(578)	(1,078)	(1,068)					
Paraguay	6.4	5.4	4.0	2.4	5.3	5.3	5.2	0.1
	(605)	(1,454)	(551)					
Peru	4.4	3.6	3.3	1.1	4.1	3.8	3.5	0.6
	(1,167)	(880)	(1,187)					
Venezuela	5.4	4.3	3.4	2.0	4.5	4.3	3.1	1.4
	(359)	(1,262)	(632)					

* Adjusted for the effects of the number of living children using Fiji as the standard.

— Data not available.

Sources: WFS First Country Reports, Table 3.3.3.

Table 4. Mean Total Number of Children Desired by Occupation of Husband, Currently Married Women with Three Living Children (Including Current Pregnancy): Selected WFS Countries

OCCUPATION OF HUSBAND	ASIA AND THE PACIFIC									
	Bangla-desh	Fiji	Indo-nesia	Jordan	Korea, Rep. of	Malay-sia	Paki-stan	Philip-pines	Sri Lanka	Thai-land
Professional*	4.0	3.4	3.8	4.6	3.0	4.0	3.5	3.4	3.2	3.3
Skilled Manual	3.8	3.5	4.1	5.8	3.0	4.3	4.0	3.4	3.3	3.2
Unskilled Manual	—	3.5	4.7	4.9	3.0	4.5	4.1	3.3	3.3	3.1
Sales/Service	3.7	3.6	4.2	6.0	3.1	4.2	3.9	3.4	3.4	3.5
Agriculture	3.9	3.7	4.0	5.1	3.4	4.3	4.3	3.6	3.4	3.7

OCCUPATION OF HUSBAND	LATIN AMERICA AND THE CARIBBEAN			
	Colom-bia	Dominican Republic	Mexico	Panama
Professional*	3.4	3.8	3.7	3.6
Skilled Manual	3.7	4.2	4.0	3.7
Unskilled Manual	3.9	4.7	4.0	3.8
Sales/Service	3.4	4.5	3.8	4.0
Agriculture	4.2	4.4	4.6	3.8

* Professional includes also managerial, technical, and clerical.

— Data not available.

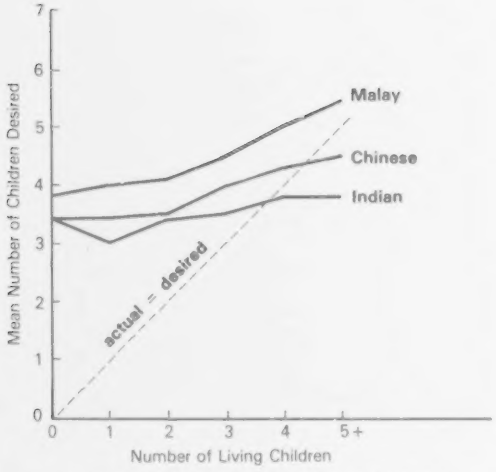
Sources: WFS First Country Reports, Table 3.3.3.

Education. Except in Indonesia and Bangladesh, for women with at least a secondary education the mean number of children desired is 1.0 to 2.5 less than for women with a minimal or no education (see Table 3). As with residence, this gap is largely accounted for by the differences in the number of living children. More educated women tend to be younger and to have fewer children than their less educated counterparts. However, in Kenya, Jordan, Pakistan, Mexico, and Venezuela, women in the highest educational category wanted about one child less than those in the lowest category, even accounting for differences in fertility. In ten other countries, the mean number desired among the most educated women was between 0.5 and 0.9 lower than for the least educated.

Husband's Occupation. The fertility desires of women according to their husband or partner's occupation can be ascertained for 14 countries. In Table 4 five occupational classifications have been somewhat arbitrarily arranged in order of the assumed degree of exposure to modern ways of life. In all but three of the countries the women associated through their husbands with professional, managerial, technical, or clerical occupations desired on average the smallest family sizes. Typically agricultural families had desired the largest families, but farming does not invariably produce a setting where large families are valued highly. In the Dominican Republic, Malaysia, and Indonesia wives of unskilled manual workers had the highest mean number of desired children, and in Jordan and Panama the highest desired number was reported by those in sales and service occupations.

In Jordan occupational designations are the more successful in identifying different family size norms, than in other countries. Professionals desire 1.4 fewer children than those involved in sales and service. There is almost a one child difference from the largest to the smallest mean desired family size in Pakistan, Mexico, the Dominican Republic, Colombia, and Indonesia. In the remaining countries the occupational differences are fewer.

Figure 4. Mean Number of Children Desired by Number of Living Children and Ethnic Origin, Currently Married Women: Malaysia



Source: Appendix Table A-5 (WFS First Country Report, Malaysia, Table 3.4.6. B)

Ethnic and Religious Differences. Among the ascribed characteristics which are associated with family size norms are ethnic background and religious affiliation. These relationships are detailed for eight countries in Appendix Table A-5. In many of these countries ethnicity and religion are practically synonomous, and they have a bearing on acquired characteristics such as education, residence, and occupation. In Malaysia, for example, the Malays are overwhelmingly Moslem, rural, and have less education than the ethnic Chinese, who are primarily Buddhists, or the Indians, mainly Hindu. The three groups also differ in their desired family size (see Figure 4); the Malays desire the largest families and the Indians the smallest. Ethnicity undoubtedly contributes to the large differentials in desired family size by residence and education cited earlier for Malaysia.

Generally, Moslem countries and Moslem groups within countries have a higher desired family size than other ethnic groups. In Jordan, Moslem women want at least one child more than Catholic and "others," and this is consistent for each level of actual family size. In the Philippines, the Moslem minority wants about two more children than other Filipinos, who are primarily of Catholic and other Christian religions. In Kenya, Moslem women desire about one more child than the Christian majority, but about one less than women with no religious affiliation. In Sri Lanka and Fiji, however, there are no significant differences between Moslems and the other major religious groups in those countries. In Sri Lanka, only the Christian minority differed from the other groups; the mean was between 0.3 and 0.4 lower than among the Buddhists, Hindus, and Moslems even after adjusting for differences in the number of living children.

Other countries for which fertility preference data are available by ethnicity or religion failed to show great differences in desired family size by these background variables, with the exception of Guyana. The mean among Guyanese women of African origin was 0.5 higher than among those of Indian origin, after adjusting for the number of living children. Again, these ethnic effects carry over into socioeconomic characteristics: the rural population in Guyana consists predominantly of ethnic Indians.

In Panama and Korea, religious differences between Catholics and non-Catholics in the first case and between women with no religion, Buddhists and Christians in the second case were not large. The mean number of children desired by Christians in Korea was 0.3 less than among the other religious groups, but there were virtually no differences between Catholics and others in Panama, after adjusting for the number of living children.

Excess Fertility

One of the most important reasons for studying desired family size is for the insights it can give into women's opinions about their own reproductive behavior. It seems reasonable to argue, for example, that a woman who has a large family, but claims that if she were able to choose, her preference would be for a small family, is somewhat dissatisfied with the current situation. This does not mean she did not want some of her children at the time she had them, but it may mean her present attitudes do not conform to her past behavior. "Excess fertility" is said to exist when the number of living children is greater than the desired number of children.

Table 5. Mean Number of Living Children and Mean Total Number of Children Desired by Ever-married Women Aged 40–44 Years: WFS Countries

COUNTRY	Mean Number of Living Children	Mean Number of Children Desired	Difference
AFRICA			
Kenya	6.1	8.1	−2.0
ASIA AND THE PACIFIC			
Bangladesh	5.1	4.7	0.4
Indonesia*	4.1	5.0	−0.9
Jordan	7.2	7.4	−0.2
Korea, Rep. of	4.5	3.6	0.9
Malaysia	5.5	4.6	0.9
Nepal	3.8	4.2	−0.4
Pakistan	5.0	4.4	0.6
Philippines	5.9	5.2	0.7
Sri Lanka	4.9	4.4	0.5
Thailand	5.1	4.1	1.0
Turkey	4.5	3.2	1.3
LATIN AMERICA AND THE CARIBBEAN			
Colombia	5.6	4.9	0.7
Costa Rica	6.0	6.1	−0.1
Dominican Republic	5.5	5.6	−0.1
Guyana	5.7	5.8	−0.1
Jamaica	4.9	4.8	0.1
Mexico	6.0	5.2	0.8
Panama	5.5	5.1	0.4
Paraguay	5.5	6.5	−1.0
Peru	5.2	4.4	0.8
Venezuela	4.9	4.9	0.0

* Refers to currently married women only.

Sources: WFS First Country Reports, Tables 2.3.1B and 3.3.1B except Fiji (F1, F2, G17, and G18), Indonesia (3.1.2A), and Thailand (3.4.2A).

One method for estimating the extent of excess fertility is to compare stated fertility desires with actual family size among women who are at the end of their childbearing years. Table 5 shows these two measures and their differences for women 40 to 44 years of age. In 12 of the 22 countries included the differential between desired and actual fertility is 0.5 or more. The greatest excess fertility was in Thailand and Turkey where women had an average 1.0 and 1.3 more children respectively than they said they wanted. In Kenya, Indonesia, and Paraguay, in contrast, women reported they had 0.9 to 2.0 children less than they would have preferred resulting in deficit fertility.

While some of the women may be rationalizing the number of desired children to correspond at least approximately to the number of children they already have, the fact remains that in about one-half of the countries surveyed they are admitting to some degree of dissatisfaction with their completed family size. Because the survey can capture their situation at one point in time, in the later years of their reproductive lives, it is not possible to ascertain whether their family size preferences are the same as they were earlier in their marriage or whether, with hindsight, they wished they had borne fewer children. Another possibility is that social norms about family size in general are shifting downward.

In the countries reporting neither excess or deficit fertility, women aged 40 to 44 years are presumably satisfied with their family sizes—ranging from an average of 3.8 for Nepal to 7.2 for Jordan. If younger women have such large families the implications for future population growth are staggering. At current fertility rates, Jordan's population will double in only 21 years, Nepal's in 29 years.[16]

Desire for No More Children

Another measure of family size preferences with more immediate implications for the fertility rate is the desire for no more children. The wish to cease childbearing is theoretically a consequence of achieving a preferred number of children, or of a situation which has prompted a downward revision of earlier preferences. In either case the number of children which signals the stopping point may be a personal preference based on the experience and expectations of an individual couple rather than an ideal number preferred under the best of circumstances.

The most important determinant of the desire for no more children is obviously the number of offspring already born, although a woman's family size at the time of the survey may have already surpassed her preferred stopping point. But other factors play an important part in decisions about continuing childbearing. Age, health, or financial situation may prompt women to want to avoid further pregnancies even if they have not reached their desired number. Many women live in a cultural climate which is oblivious to inconsistencies between stated family size desires and behavior. For these women, their statement that they want more children when they have already exceeded their preferred family size may not be viewed as unreasonable.

Table 6. Percent of Currently Married "Fecund" Women Who Want No More Children by Number of Living Children: WFS Countries*

COUNTRY	NUMBER OF LIVING CHILDREN										
AFRICA	0	1	2	3	4	5	6	7	8	9+	Total
Kenya	1.5	0.8	3.6	7.1	16.1	18.4	25.4	37.1	45.6	56.3	16.7
ASIA AND THE PACIFIC											
Bangladesh[a]	13.3	42.5	56.4	66.4	76.7	84.5	90.3	92.4	90.6	96.0	60.8
Fiji	2.1	6.7	34.0	48.5	66.6	82.6[b]	—	—	—	—	49.5
Indonesia	4.0	9.1	28.5	45.0	57.4	68.3	77.7	87.1	84.1	93.9	38.8
Jordan[c]	4.2	4.5	15.2	24.5	38.3	47.2	54.5	68.4	69.3	78.3	41.7
Korea, Rep. of	12.5	13.0	65.6	85.8	92.0	95.3	96.2	99.1	100.0	(100.0)	71.6
Malaysia	0.4	3.5	21.4	31.1	51.9	78.3[b]	—	—	—	—	42.7
Nepal	1.3	5.2	23.4	39.4	58.0	66.3	80.5	88.0	88.9	(92.9)	29.6
Pakistan	2.0	7.0	30.0	48.0	69.0	87.3[b]	—	—	—	—	49.0
Philippines	0.7	6.9	32.6	51.2	68.2	73.3	76.4	86.3	81.4	84.7	54.3
Sri Lanka	2.2	14.2	49.6	72.7	86.9	92.5[b]	—	—	—	—	61.4
Thailand	5.4	18.7	46.1	64.1	81.3	90.4	90.5	95.9	92.9	97.3	56.9
Turkey	0.8	10.0	51.5	73.4	82.6	84.9	86.4	84.8	83.1	92.6	57.1
LATIN AMERICA AND THE CARIBBEAN											
Colombia	9.0	19.0	52.0	65.0	79.0	78.0	85.0	93.0	89.0	90.0	61.0
Costa Rica	5.3	13.0	35.2	58.9	68.4	74.7	77.8	77.3	86.7	85.0	52.0
Dominican Republic	3.1	10.5	33.3	54.0	61.6	72.1[b]	—	—	—	—	44.7
Guyana	7.7	15.8	35.8	51.8	59.8	78.0	84.6	84.4	86.5	89.5	51.1
Jamaica	2.9	21.3	39.0	47.5	54.0	60.9	58.3	71.1	54.4	69.9	41.5
Mexico	9.8	10.0	42.4	53.5	69.4	77.2	81.6	86.3	89.0	91.1	57.1
Panama	7.7	12.0	42.0	72.6	81.7	85.1	86.7	86.4	86.6	88.6	63.0
Paraguay	1.4	4.9	21.1	31.0	41.2	46.0	52.7	55.3	67.3	73.2	32.3
Peru	6.3	19.9	48.2	62.2	74.2	80.1	80.7	87.2	88.1	94.7	61.4
Venezuela	8.9	10.0	41.1	64.1	74.2	85.5	84.5	91.2	82.9	88.9	55.0

* Includes women in union who are fecund, sterilized, whose husbands are sterilized, or who are currently pregnant.

[a] In Bangladesh, women were asked whether they wanted another child "soon."

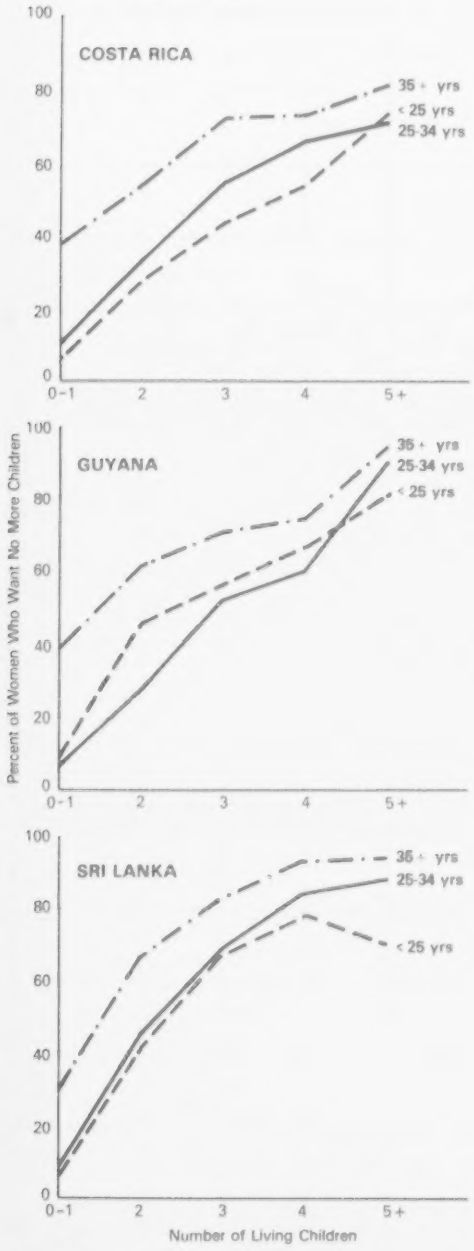
[b] Five or more children.

[c] Sterilized women were apparently excluded from the base population.

( ) Twenty or fewer cases.

Sources: Philippines, Jordan, Turkey, Venezuela, Jamaica, Paraguay, Guyana, and Kenya: WFS First Country Reports, Table 3.1.1. All Other Countries: United Nations, 1981, Table 16, p. 44.

Figure 5. Percent of Currently Married "Fecund" Women Who Want No More Children by Number of Living Children and Age: Selected WFS Countries



Source: WFS First Country Reports, Table 3.3.1.

Number of Living Children and Age of Mother

As would be expected, the percentage of women who want no more children increases directly with the number of children already born. A sharp increase occurs in most countries after two to three children, as shown in Table 6.

The differences among countries reflects their respective levels of preferred family size. After three children, over half the women in all the Latin American countries, except Jamaica and Paraguay, wanted to stop childbearing. Among the Asian countries, where family size preferences are generally higher, the percentage of women with three children who want to cease childbearing ranged from 86 percent in Korea to 25 percent in Jordan. However, in six of the 11 Asian countries, 50 percent or more of the women with three children wanted no more.

Kenya, where only 17 percent of the women want no more children, is a clear exception. While the desire to stop childbearing increases with age, the proportion who want no more children only reaches 50 percent among women with nine or more living children.

The percentage of women without children who say they want no children is as high as 13 percent in Korea and 10 percent in Mexico. This apparently contradicts family size preferences reported earlier, (i.e., less than two percent of women in any of the survey countries listed zero as their desired family size) (see Appendix Table A-2). These two measures, however, reflect different aspects of the decision-making process involved in forming families.

The percent of women wanting no more children also increases with age. Older women will have had time to have more children and the more children a woman has, the more likely she will have borne as many as she wants.

In most countries, the percentages of women wanting no more children increases similarly by number of children for each broad age group. This relationship is presented in a graph for selected countries in Figure 5. Again, this reflects the findings of the previous section, that the family size preferences are fairly constant among age groups. However, at each family size, the older age groups are more likely to want to stop childbearing. This is particularly noticeable among women 35 years or older. Among the countries surveyed, at least 59 percent of the women 45 years or older with three living children wanted no more children. In ten of the countries,* at least 75 percent wanted no more.[17]

*Excluding countries where the number of women 45 years or older who had three living children was less than 20.

Table 7. Percent of Currently Married "Fecund" Women with Three Living Children Who Want No More Children by Urban/Rural Residence and Level of Education: WFS Countries

COUNTRY	RESIDENCE		EDUCATIONAL LEVEL		
	Urban	Rural	None	Primary	Secondary
AFRICA					
Kenya	12.6	6.4	5.5	7.4	14.3
	(82)	(624)	(334)	(316)	(60)
ASIA AND THE PACIFIC					
Bangladesh	74	66	64	73	68
	(57)	(708)	(587)	(147)	(30)
Fiji	59	42	55	46	48
	(262)	(397)	(91)	(236)	(333)
Indonesia	43	45	51	37	48
	(163)	(827)	(408)	(372)	(210)
Jordan	40	10	16	22	22
	(234)	(118)	(182)	(106)	(64)
Korea, Rep. of	90	79	87	82	91
	(585)	(357)	(97)	(515)	(330)
Malaysia	49	27	32	29	45
	(156)	(660)	(206)	(470)	(106)
Nepal	—	—	39	51	*
	—	—	(760)	(35)	(1)
Pakistan	53	47	47	59	68
	—	—	—	—	—
Philippines	62	47	41	45	53
	(475)	(800)	(37)	(33)	(1,005)
Sri Lanka	76	71	66	73	75
	(176)	(611)	(138)	(319)	(399)
Thailand	56	65	54	66	*
	(55)	(343)	(63)	(319)	(16)
Turkey	81	65	62	80	90
	(395)	(318)	(293)	(371)	(49)
LATIN AMERICA AND THE CARIBBEAN					
Colombia	67	59	53	68	63
	(286)	(134)	(66)	(256)	(96)
Costa Rica	64	52	*	55	69
	(219)	(163)	(14)	(260)	(108)
Dominican Republic	55	53	*	53	62
	(109)	(102)	(16)	(169)	(26)
Guyana	48	55	56	45	52
	(158)	(255)	(257)	(155)	(412)
Jamaica	54	40	44	59	48
	(160)	(124)	(216)	(68)	(284)
Mexico**	58	47	48	51	65
	(443)	(269)	(101)	(469)	(142)
Panama	76	71	75	67	78
	(148)	(272)	(28)	(195)	(197)
Paraguay	35	27	29	28	39
	(165)	(183)	(58)	(198)	(92)
Peru	69	57	58	60	69
	—	—	—	—	—
Venezuela	66	53	65	63	66
	(292)	(62)	(46)	(218)	(90)

* Percentage not shown where base is less than 20 women.

** Rural = localities with less than 2,500 inhabitants; urban = all other locations.

— Data not available.

Sources: Kenya, Jordan, Philippines, Turkey, Guyana, Paraguay, and Venezuela: WFS First Country Reports, Table 3.1.3. All Other Countries: United Nations, 1981, Table 18, pp. 51-52.

Thus, in most countries, number of living children alone does not determine desire for more children. While attainment of the preferred family size over the woman's reproductive life span may be a goal, this is apparently adjusted to take into account the woman's actual situation.

Several studies have shown that, after financial considerations, the primary reasons couples give for not wanting any more children are maternal health and the general physical and emotional strains associated with rearing children.[18] Both these considerations would look larger in importance as age increases. And, while older couples might be more likely to have higher incomes than young couples, they may be less optimistic about the probability of their financial resources expanding to cover the extra expenses of more children.

Background Characteristics

The overall percent of women who want no more children will be higher among populations and subpopulations that desire fewer children because the lower the total number of children wanted, the greater the percentage of women at a given age who will already have achieved that number. Thus it is not surprising that the greatest percentages of women who want no more children are found in urban areas and among women with higher educational attainment—the same sub-populations with lower family size preferences.

A recent study of WFS data from eight countries[19] found that the desire for more children, after controlling for age and parity did decrease among the more educated women, with the exception of Thailand and Malaysia. In a more detailed analysis of WFS data from Panama, Sri Lanka, and Peru, United Nation's researchers[20] found that while education was related to the desire for more children, it was much less important than the duration of marriage and the number and sex of living children. The United Nations' study also reports that the occupation of the husband, the place of residence, and the work history of the wife are related to the desire for more children. Their results, along with similar data for eight additional WFS countries, are shown in Table 7.

As with the desired family size, there were clear differences among ethnic and religious groups in the wish to limit childbearing and in a similar direction (see Appendix Table A-7).

Sex Composition of Children

In addition to preferences as to the number of children couples want, they may feel it important to have at least one son or daughter or to have children of both sexes. Cultural or personal biases for a specific sex or combination of sexes among children might encourage couples to continue having children until their goal is achieved, even if it means having more children than they consider best for their situation. However, it can be argued that an unfavorable sex ratio could encourage couples to stop having children if they perceive their current family of, for example, all girls, as evidence that additional births would bring more of the same. If a family of all girls is considered to be a financial burden or a social embarrassment, couples may be unwilling to risk an additional birth even if it means a smaller completed family than they would have preferred.[21]

The historical preference for sons in many cultures is well known. Male children carry on the family name and often are expected to provide economic assistance while daughters are absorbed into their husband's family after marriage. This preference continues in some countries, particularly in rural areas[22] and among certain religious groups like Moslems and Hindus. In some societies, women may want daughters and their husbands, sons.[23] There is also a strong belief that a balance of sexes among siblings is the ideal situation for healthy psychological development.

Table 8 shows the percentage of women who want no more children by the number of living sons. In all the predominately Moslem countries except Indonesia (i.e., Pakistan, Bangladesh, Jordan, and Turkey), there is a clear son preference, but the preference appears strongest in Nepal and Korea, two non-Islamic countries with very different levels of fertility and family size preferences. In Korea, where other studies have confirmed a strong preference for sons,[24] the percentage of women with three children who want no more children jumps from 47 to 82 percent with one son, and up to 96 percent with two sons.

But even in some of the countries with a clear son preference, there appears to be an even greater value placed on having children of both sexes (see Figure 6). In Turkey, for example, while the percentage of women who want no more children ranges from 44 to 60 percent depending upon whether they have all daughters or all sons. Among Turkish women with at least one child of each sex between 75 and 82 percent want no more children.

*Table 8. Percent of Currently Married "Fecund" Women with Two or Three Living Children Who Want No More Children by Number of Living Children and Sons: WFS Countries**

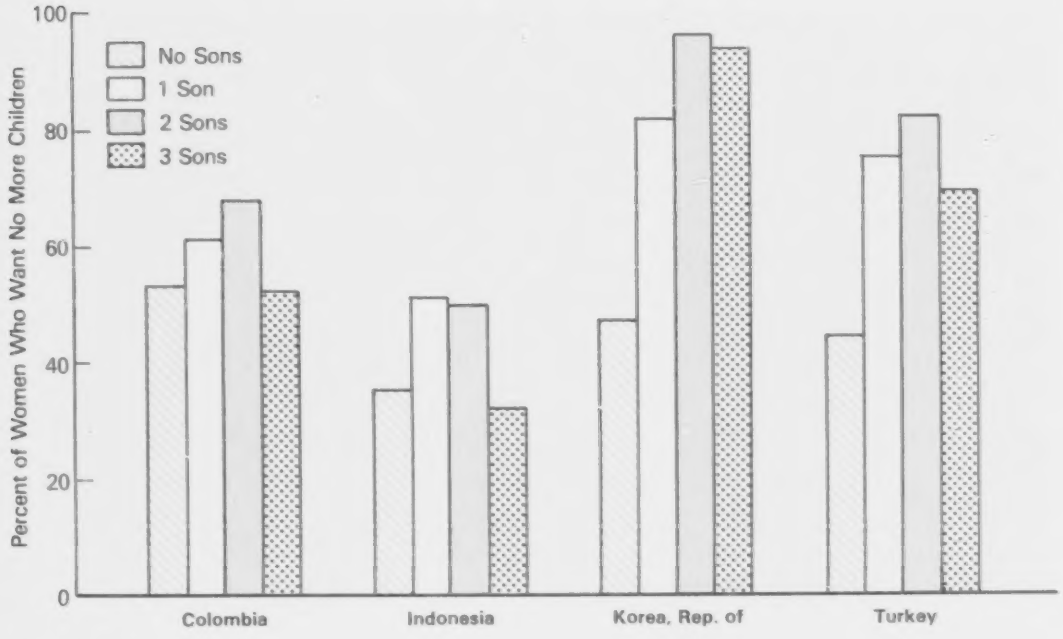
COUNTRY		NUMBER OF CHILDREN						
		Two Children			Three Children			
		Number of Sons			Number of Sons			
		0	1	2	0	1	2	3
AFRICA								
Kenya	Percent	6	3	4	2	9	7	8
	(Number)	(126)	(301)	(143)	(72)	(209)	(220)	(67)
ASIA AND THE PACIFIC								
Bangladesh	Percent	50	67	69	56	67	80	70
	(Number)	(147)	(358)	(187)	(94)	(216)	(264)	(79)
Fiji	Percent	23	36	30	—	—	—	—
	(Number)	(101)	(311)	(138)	—	—	—	—
Indonesia	Percent	32	35	18	35	51	50	32
	(Number)	(252)	(556)	(229)	(90)	(342)	(310)	(105)
Jordan	Percent	26	49	32	57	61	73	40
	(Number)	(94)	(178)	(82)	(28)	(87)	(139)	(43)
Korea, Rep. of	Percent	36	71	77	47	82	96	94
	(Number)	(112)	(361)	(244)	(60)	(252)	(402)	(128)
Malaysia	Percent	15	25	17	—	—	—	—
	(Number)	(144)	(371)	(180)	—	—	—	—
Nepal	Percent	10	27	33	10	36	54	42
	(Number)	(170)	(368)	(217)	(77)	(255)	(259)	(103)
Pakistan	Percent	12	35	44	—	—	—	—
	(Number)	(109)	(259)	(146)	—	—	—	—
Philippines	Percent	22	44	23	35	53	58	40
	(Number)	(260)	(529)	(266)	(101)	(367)	(456)	(150)
Sri Lanka	Percent	39	60	41	—	—	—	—
	(Number)	(176)	(393)	(205)	—	—	—	—
Thailand	Percent	33	51	42	—	—	—	—
	(Number)	(93)	(230)	(118)	—	—	—	—
Turkey	Percent	33	61	46	44	75	82	69
	(Number)	(143)	(380)	(186)	(69)	(229)	(250)	(78)
LATIN AMERICA AND THE CARIBBEAN								
Colombia	Percent	45	53	49	53	61	68	52
	(Number)	(95)	(206)	(106)	(38)	(139)	(145)	(33)
Costa Rica	Percent	38	35	32	47	59	58	55
	(Number)	(94)	(248)	(117)	(40)	(130)	(137)	(42)
Dominican Republic	Percent	30	22	28	—	—	—	—
	(Number)	(47)	(83)	(53)	—	—	—	—
Mexico	Percent	32	41	47	48	48	62	49
	(Number)	(139)	(339)	(176)	(69)	(224)	(239)	(75)
Panama	Percent	34	49	34	—	—	—	—
	(Number)	(76)	(210)	(109)	—	—	—	—
Paraguay	Percent	19	22	20	27	31	35	27
	(Number)	(84)	(205)	(98)	(26)	(121)	(109)	(34)
Peru	Percent	46	50	42	56	63	67	57
	(Number)	—	—	—	—	—	—	—
Venezuela	Percent	26	48	32	57	61	73	40
	(Number)	(94)	(178)	(82)	(28)	(87)	(139)	(43)

* Not available for Jamaica and Guyana.

— Data not available.

Sources: Philippines, Kenya, Turkey, Venezuela, Jordan, and Paraguay: WFS First Country Reports, Table 3.4.1. All Other Countries: United Nations, 1981, Table 24, pp. 68-69.

Figure 6. Percent of Currently Married "Fecund" Women with Three Children Who Want No More Children by Number of Living Sons: Selected WFS Countries



Source: Table 8

In all of the Latin American countries, women with at least one child of each sex are most likely to want to stop having children, suggesting a preference for a balanced sex composition. In Venezuela and, to a lesser extent, Costa Rica, while an equal sex ratio is most valued, there is a slight preference for families with all daughters over those with only sons.

The data show that the sex composition of a family does have an effect on plans for future births in some countries and may account for some of the "excess" fertility experienced. But overall, the effect does not appear to be large, partly because the probability of having a child of the desired sex is about 50 percent, and is even a little better for having a son.* Among the 13 countries with sex composition data for three child families, 86 to 93 percent of the women had at least one son, and 74 to 80 percent had a child of each sex. Thus, the vast majority of women will have satisfied either a son preference or a sex balance preference by the time they have three children.

*About 105 males are born for every 100 females.

Table 9. Percent of Currently Married "Fecund" Women Who Know of an Efficient Contraceptive Method by Desire for More Children: WFS Countries***

COUNTRY	Want More		Want No More		Undecided	
	Percent	Number	Percent	Number	Percent	Number
AFRICA						
Kenya	87.7	3,484	93.9	862	82.8	794
ASIA AND THE PACIFIC						
Bangladesh	78.2	1,647	84.4	3,253	67.7	444
Indonesia	77.6	3,330	86.5	2,542	67.2	684
Jordan	95.5	1,671	98.6	1,280	97.2	117
Malaysia	88.6	2,752	95.3	2,100	81.9	68
Nepal	15.6	2,995	31.8	1,447	20.6	446
Pakistan	71.6	2,251	81.4	1,827	—	—
Philippines	92.9	2,897	97.1	4,284	88.2	707
Sri Lanka	89.9	1,778	95.0	3,262	88.3	276
Thailand	95.0	1,052	97.8	1,482	98.9	75
Turkey	82.2	1,466	91.3	2,135	81.2	127
LATIN AMERICA AND THE CARIBBEAN						
Colombia	94.6	966	96.3	1,640	70.9	61
Costa Rica	99.6	1,106	99.8	1,273	99.9	67
Dominican Republic	96.2	718	98.4	651	94.9	87
Guyana	94.8	1,084	96.0	1,554	94.7	209
Jamaica	98.9	870	98.2	884	97.5	174
Mexico	88.7	2,094	91.7	2,784	62.0	49
Panama	98.1	889	99.0	1,591	89.5	45
Paraguay	95.3	1,486	95.9	766	95.5	120
Peru	79.6	5,232	81.7	9,949	57.2	1,025
Venezuela	97.1	897	97.9	1,212	94.4	96

* Percents were adjusted using the age distribution for Fiji.

** Not available for Fiji or the Republic of Korea.

— Data not available.

Sources: WFS First Country Reports, Table 5.1.1 except for Indonesia (1.5.1).

Desire for More Children

Knowledge of Contraception

The knowledge of contraceptive methods may be a factor in whether a woman will decide to limit childbearing.[25] If a woman does not know effective contraceptive means exist, or how to obtain them, she may not believe she has a choice about future childbearing. On the other hand, women who decide they want to avoid having more children may seek out the information and means to do so, thus the direction of causality is not clear.

In most WFS countries, knowledge of an efficient contraceptive method was very high.[26] However, as Table 9 shows, knowledge is highest among women who want no more children and is generally lowest for women who are undecided about future births. The difference in contraceptive knowledge by desire for additional children is minimal in most countries, especially where over 90 percent of the women know an efficient method, but there are some exceptions. The most striking is Indonesia where 86.5 percent of the women who say they want no more children know of an efficient method compared to 77.6 percent of women who want more children and only 67.2 percent of women are "undecided." In Peru, only 57.2 percent of the undecided women knew of an efficient method, while among all other women about 80 percent knew about efficient family planning methods.

The idea of family limitation may have less salience for women who are not aware of effective methods of birth control. These women may have no reason to form an opinion about whether they

*Table 10. Percent of Currently Married "Fecund" Women Who Are Currently Using Contraception by Desire for Future Births and Background Variables: WFS Countries**

COUNTRY	RESIDENCE		EDUCATIONAL LEVEL		
	Urban	Rural	None	Primary	Secondary +
ASIA AND THE PACIFIC					
Bangladesh					
Want More Children	1.2	3.5	1.0	3.1	7.8
Want No More Children	11.1	28.0	9.4	19.5	37.6
Fiji					
Want More Children	28.1	36.8	24.0	29.3	40.8
Want No More Children	50.1	55.4	57.3	51.8	47.0
Jordan					
Want More Children	4.8	23.0	8.3	34.7	51.6
Want No More Children	16.6	46.8	29.1	55.6	62.0
Korea, Rep. of					
Want More Children	11.7	9.9	5.5	9.3	12.6
Want No More Children	38.0	46.5	40.8	42.0	50.6
Malaysia					
Want More Children	27.5	44.9	20.5	34.1	48.9
Want No More Children	42.0	63.2	35.4	52.3	67.0
Pakistan					
Want More Children	0.5	5.6	0.5	3.1	17.3
Want No More Children	13.0	38.9	18.2	27.1	59.9
Philippines					
Want More Children	22.8	37.0	3.8	16.1	32.2
Want No More Children	43.0	57.4	18.1	32.3	52.4
Sri Lanka					
Want More Children	18.3	20.0	4.7	13.5	25.9
Want No More Children	43.3	51.7	32.4	41.2	55.8
Thailand					
Want More Children	24.0	34.8	18.4	25.7	37.9
Want No More Children	35.6	64.2	45.0	47.1	52.7

(continued . . .)

wanted to stop childbearing, believing that it is a matter of chance or of divine will.

While a large majority of women in all the countries except Nepal knew of at least one efficient contraceptive method, the slightly lower knowledge among women who want more children and particularly among women who are undecided, suggests that lack of knowledge of efficient family planning methods could be a contributing factor in the desire for future births for some women. But the overall effect of contraceptive knowledge on the decision to stop childbearing appears to be small.

A related factor, of course, is the availability of contraceptives. In a study of the perceived availability of family planning services in five WFS countries, one researcher found that in Korea and Nepal, and to a lesser extent Colombia and Malaysia, knowledge of family planning outlets was higher among women who wanted no more children.[27] But this was not found in Costa Rica where the women who were planning additional births were somewhat more likely to know of a family planning outlet.

*Table 10. Percent of Currently Married "Fecund" Women Who Are Currently Using Contraception by Desire for Future Births and Background Variables: WFS Countries**

COUNTRY	RESIDENCE		EDUCATIONAL LEVEL		
	Urban	Rural	None	Primary	Secondary +
LATIN AMERICA AND THE CARIBBEAN					
Colombia					
Want More Children	22.9	47.5	23.1	40.6	60.6
Want No More Children	31.7	58.3	32.3	54.8	69.2
Costa Rica					
Want More Children	31.1	—	46.8	62.9	69.0
Want No More Children	71.9	78.4	66.7	83.0	80.2
Dominican Republic					
Want More Children	14.8	29.2	0.6	20.4	49.4
Want No More Children	30.8	51.1	11.8	40.5	57.9
Guyana**					
Want More Children	17.3	27.4	14.0	17.3	25.9
Want No More Children	39.5	44.7	37.0	39.8	47.0
Jamaica**					
Want More Children	44.7	53.9	—	45.8	60.9
Want No More Children	34.7	46.8	—	40.0	46.1
Mexico					
Want More Children	18.6	46.7	11.8	30.1	56.4
Want No More Children	22.3	54.9	19.5	39.2	65.1
Panama					
Want More Children	31.7	46.7	27.6	35.4	51.8
Want No More Children	54.0	72.0	48.0	64.3	72.9
Paraguay					
Want More Children	26.9	52.4	18.2	36.6	57.0
Want No More Children	32.9	62.9	31.6	43.0	77.4
Peru**					
Want More Children	7.8	41.3	9.1	33.7	51.0
Want No More Children	15.4	49.3	19.5	45.8	64.6
Venezuela**					
Want More Children	23.2	47.8	20.7	41.9	53.3
Want No More Children	32.9	63.0	39.1	58.8	69.3

* Not available for Kenya, Indonesia, Nepal, and Turkey.
** None category in education refers to less than 4 years.
— Data not available.
Sources: WFS First Country Reports, Table 5.3.3.

Contraceptive Use

While the implementation of fertility preferences may be assessed by comparing desired family size with the actual number of children born, the implementation of the desire for no more births is more difficult to access. These survey data reflect only one point in time and cannot indicate whether the women will successfully avoid more pregnancies until the end of their reproductive lives. However, the data do provide a means of measuring the behavior directed towards this goal—current use of contraceptive methods.

Clearly, contraceptive use is not a definitive measure of the implementation of the desire to limit childbearing. Women who do want children in the future may use contraception for prolonging intervals between births. On the other hand, women who wish to cease childbearing may use methods other than contraception, such as abortion. Still, contraceptive use is a convenient indicator of action taken to avoid future births.

Implementation

This relationship between desire for more children and contraceptive use may also be studied to estimate the "unmet need" for family planning services. "Unmet need" usually refers to fecund women who say they want no more children yet are not using contraception. These women are considered by policymakers to constitute the group most urgently in need of family planning services. The percentages of women using contraception by their desire for more births and several background variables are shown in Table 10.

Except in three countries—Panama, Costa Rica, and Venezuela—less than one half of the "exposed"* women who want no more children are using contraceptives, indicating a low degree of overt implementation of their stated desire to prevent further births and a large "unmet" need for family planning services. In three countries, Nepal, Bangladesh, and Pakistan, less than 15 percent of the women who wanted no more children reported taking any action to avoid pregnancy. In most of the other countries, only 30 to 48 percent of these women were using contraception.

To put these contraceptive prevalence rates in perspective, it is useful to compare the rates for women who want more children. With a few exceptions women who say they want no more children use family planning at uniformly higher rates than those who have not completed their families. Clearly, in most countries women who want no more children are attempting to implement their desire to cease childbearing within the context of the prevailing levels of contraceptive availability and acceptability. The exceptions are Fiji and Paraguay, where there were less than three percentage points difference in contraceptive use by desire for future births. In countries where overall contraceptive prevalence is very low, use levels by desire for more children appear to be wider ranging. However, it must be recognized that the type of contraceptive most easily available and most popular will affect these differentials. For example, sterilization is the primary method in some countries like Pakistan and Bangladesh and since it is used to terminate rather than space childbearing only women who want no more children would be among the users.

Bearing in mind that differences in contraceptive use between women who wish to terminate childbearing and women who may only want to delay the next birth reflect differences in the types of contraceptives prevalent in a country or region, it is possible to compare the "unmet need" among various sub-populations. In all countries, the percent of women wanting no more children who used contraception was lower in rural areas, indicating a greater "unmet need." In Fiji and Costa Rica, there was less than ten percent difference in the degree to which urban and rural women implement their desire to avoid pregnancy. The difference is 10 to 18 percent in Korea, Sri Lanka, and Guyana, but in each of the other countries, the "unmet need" is over 20 percent higher in rural areas.

The more educated the women, the more likely she is to take positive action to prevent further births. Only Fiji contradicts the finding: in Fiji contraceptive use among women wanting no more children is highest among those with no education and lowest among those with a secondary or higher education. In each of the other countries, although magnitudes vary widely, there is at least a 12 percent difference in use among women who want no more children in the lowest and highest educational group.

Comparing these differentials by education and residence with differentials among women who do want more children, it is interesting to note that while there is a similar pattern or use, the differentials are almost invariably greater among the women who want more children. This may be explained by the greater motivation to use contraception among women wishing to terminate childbearing, within each residence and education group.

Summary

The vast majority of WFS respondents in the 23 countries in this report were able to state the number of children they wanted. Compared to the industrialized countries, the mean preferred family size among these developing countries was high, between three and four, but women in Jordan and Kenya wanted an average of six and seven children, respectively. The average number of children desired increased with both the age of the respondent and the number of living children she already had. Not surprisingly, family size preference was somewhat higher among women with background characteristics associated with higher actual fertility. Less educated women and rural women demon-

*As used here, "exposed" refers to women who are currently in a marital or consensual union and able to bear children (including those pregnant) or who have themselves or whose husbands have been contraceptively sterilized.

strated a preference for slightly more children. Also within countries, ethnic and religious group affiliation had some effect on the size of family desired.

The number of living children had by far the strongest association with the number desired, suggesting that women may have been responding to the query about the number of children they wanted with the number they currently had. However, the extent to which women rationalized their responses in this way appears to be minimal; most women had either more or less children than their desired number.

The extent to which women are achieving their desired family size was estimated by comparing the average number of children desired with the average number of living children for women 40 to 44 years, who presumably had completed their families. This revealed some "excess fertility," that is, the number desired was less than the number of living children, by usually one-half to one in ten countries. In Kenya, Indonesia, and Paraguay, however, the reverse was true, women reportedly wanted one to two children more than they currently had.

A second measure of family size preference, and one which has assumed importance from a policy standpoint, is the desire for additional children. Women who want no more children are in most immediate need of family planning services to enable them to successfully limit their fertility. As would be expected, the percentage of women wanting no more children increased with both age and number of living children. In most of the countries, about 50 percent of the respondents wanted to stop childbearing by the time they had three living children. The percentages are much higher among women 35 and older. Also, many of the same differentials by education, residence, and ethnic group found with the mean desired family size measure emerged among women wanting no more children.

Another factor affecting the desire to stop having children is the preference for a certain sex composition among offspring. A strong desire for sons was discovered in some countries, notably Korea and Nepal, but the majority expressed a preference for a balanced sex ratio for their children.

Some researchers have felt that the desire to cease childbearing has more relevance for women who are familiar with efficient means of implementing this desire. There was a small difference in the knowledge of efficient contraceptive methods by the desire for future births in some countries. Knowledge of contraceptives was slightly higher among women who wanted no more children and clearly lowest among women who were undecided about future childbearing, suggesting that the knowledge of family planning may in itself contribute to the decision to stop bearing children.

Not surprisingly, contraceptive use was much higher among women who want to avoid future pregnancies than women who want more children, indicating an attempt to implement their stated fertility preferences. The difference in contraceptive use by educational level and urban/rural residence was much smaller among women who wanted no more children than among those using contraception as a child-spacing mechanism, further evidence that the desire for no more children is a meaningful measure and that it provides sufficient motivation to use fertility control within the context of prevailing cultural attitudes and access to contraception. ■

Appendix

Appendix Table A-1. Selected Demographic, Social, and Economic Characteristics for Countries in the WFS: 1974-79

	Year of WFS Survey	Population Estimate[a,aa] Mid-1976 (Millions)	Surface Area (1000 km^2)[bb]	Birth Rate[b,aa]	Death Rate[b,aa]	Rate of Population Growth[c,aa] (Annual, Percent)	Infant Mortality Rate[d,aa]	Population Under 15 Years[aa] (Percent)	Life Expectancy at Birth[aa] (Years)	Percent Women in Union,[gg] Age 15-19	Urban Population (Percent)[f,aa]	Labor Force in Agriculture[b,cc] (Percent)	Per Capita Gross National[g,aa] Product (U.S. $)	Physical Quality of Life[g,h,dd] Index	Adult Literacy Rate[i,bb,cc] (Total)	(Female)	(Male)	Population per Physician[b,cc]	Population Having Access[b,cc] to Safe Water (Percent)	Government Position on[j,ff] Family Planning	Percent Married Women[gg] Using Contraception, Age 15-49
KENYA	1977	138	583	48	15	3.3	119	46	50	33	10	79	240	39	40	—	—	8,840	17	OP-DMR	7
BANGLADESH	1975	76.1	144	47	20	2.7	153	43	46	64.8[gg]	9	78	110	32	22[cc]	20	44	11,350	53	OP-DMR	8
FIJI	1974	.6	18	29	7	2.2	41	39	70	12.0	38	44	1,150	79	75[cc]	77	85	2,300	69	OP-DMR	40
INDONESIA	1976	134.7	2,027[k]	38	14	2.4	137	44	48	31.0[m]	18	60	240	48	72[m]	59	87	16,430	12	OP-DMR	26[m]
JORDAN	1976	2.8	98	48	13	3.4	97	48	53	28.0	42	28	610	47	70	—	—	2,250	56	NOP-FPAV	22[q]
KOREA, (REP.)	1974	34.8	98	24	7	1.7	47	39	65	3.2	48	45	670	82	88	81	94	1,600	62	OP-DMR	35
MALAYSIA	1974	12.4	330	31	6	2.5	41	43	68	11.3[n]	27	44	860	73	75	58	86	4,350	62	OP-DMR	33[m]
NEPAL	1976	12.9	141	44	20	2.3	152	40	44	61.5	4	93	120	27	13	3	22	38,650	9	OP-DMR	2
PAKISTAN	1976	72.5	804[l]	44	14	3.0	139	46	51	38.0	26	58	170	36	20[cc]	12	43	3,850	29	OP-DMR	5
PHILIPPINES	1978	44.0	300	35	10	2.5	80	43	58	11.0	32	51	410	71	87[o]	—	—	3,150	39	OP-DMR	37
SRI LANKA	1975	14.0	66	26	9	1.7	47	39	68	6.5	22	54	200	82	76[o]	64	86	6,230	20	OP-DMR	32
THAILAND	1977	43.3	514	33	10	2.3	89	45	61	14.4[o]	13	77	380	71	79[o]	70	87	8,370	22	OP-DMR	33
TURKEY	1978	40.2	780	39	12	2.6	119	42	57	21.7	39	62	690	60	60	43	77	1,720	75	OP-DMR	38
COLOMBIA	1976	23.0	1,140	33	9	2.4	90	44	61	14	64	31	630	72	73	71	75	1,820	64	OP-DMR	42
COSTA RICA	1976	2.0	51	29	5	2.4	38	44	68	13	41	30	1,040	85	84[o]	84	85	1,550	77	OP-DMR	64
DOMINICAN REP.	1976	4.8	49	39	9	3.0	96	48	58	20	47	58	780	64	66	65	68	1,870	55	OP-DMR	31
GUYANA	1975	.8	215	27	7	2.0	50	44	68	25	40	31	540	84	86[cc]	86	86	3,270	—	NOP-FPAV	31
JAMAICA	1975-76	2.1	11	30	7	2.3	20	46	68	23	41	24	1,070	85	87[cc]	87	87	3,510	86	OP-DMR	39
MEXICO	1978	62.3	1,973	42	8	3.4	66	46	65	18	64	34	1,090	75	74[o]	70	78	1,840[hh]	62	OP-DMR	30
PANAMA	1977	1.7	76	32	7	2.6	47	43	66	17	50	30	1,310	79	78	78	79	1,270	79	OP-DMR	54
PARAGUAY	1979	2.6	407	40	9	2.7	65	51	62	11	38	51	480	75	80	76	85	1,190	13	NOP-FPAV	26
PERU	1977-78	16.0	1,285	40	11	2.9	80	45	56	16	55	40	800	65	72[cc]	67	90	1,580	47	NOP-FPAV	31
VENEZUELA	1977	12.3	912	36	7	2.9	54	21	65	16	75	21	1,710	79	82	73	80	1,580	75	NOP-FPAV	49

NA = not available

a Based on most recent official country or U.N. estimate: mid-1974 estimate for most countries. Each estimate was updated to mid-1976 by applying the same rate of growth as indicated by population change during part or all of the period since 1970.
b Rates refer to 1976 and were obtained by interpolating the 1970-1975 and 1975-1980 estimates of the U.N. to 1976. The 1970-1975 and 1975-1980 rates were used in the medium variant estimates and projections as assessed by the U.N. in 1973 (U.N., *Selected World Demographic Indicators By Countries, 1950-2000).* The interpolated figures should be considered as rough approximations only.
c Birth rate minus the death rate. Since the rates were based on unrounded birth and death rates, some rates do not exactly equal the difference between the birth and death rates shown because of rounding.
d Annual number of deaths to infants under one year of age per 1,000 births.
e The percentage of women currently 15-19 years of age currently in union (as defined by each country), excluding those currently married but separated.
f The percentage of the total population living in areas defined as urban by each country.
g Data refer to either 1975 or 1976.
h Based on an average of life expectancy at age one, infant mortality, and literacy rates.
i Adult literacy is defined by source bb and cc as the percentage of those 15 or more years of age who are able to read and write. The following exceptions hold:
Source bb: Indonesia and Malaysia, 10 or more years of age.
Data from source bb and cc refer to 1970. The following exceptions hold:
Source bb: Indonesia and Nepal, 1971; Colombia, 1964; Sri Lanka and Costa Rica, 1963.
Source cc: Bangladesh and Peru, most recent estimate.
Data are from source bb unless otherwise indicated.
j The codes used to signify the government position on family planning are as follows:
OP-DMR: Official policy to reduce population growth for demographic reasons; support family planning to implement this policy.
NOP-FPAV: No official policy or statement on family planning or stated policy of non-intervention, services freely available from government centers or private clinics.
k Indonesia—including West Irian.
l Pakistan—excluding Jammu, Kashmir, Junagardh, Manavadar, Gilgit, and Baltisan.
m Indonesia—Java & Bali only.
n Malaysia—includes Peninsular Malaysia only.
o Excluding estimated adjustments for underenumeration.
q Jordan—East Bank only.

SOURCES:

aa Population Reference Bureau, *World Population Data Sheet: 1976; 1978.*
bb United Nations, *Demographic Yearbook,* 1976, T.3 and T.41; *1973,* T.33; *1971,* T.1B.
cc World Bank, *World Tables 1980: Social Indicators,* T.3 and T.5.
dd Overseas Development Council. *The United States and World Development: Agenda 1979.* T.A-4.
ff Population Reference Bureau, *Family Planning and Marriage Data Sheet: 1970-1980.*
gg WFS First Country Reports, Various Tables.
hh WHO *World Health Statistics Annual, 1978,* Vol. III, T.2.1.

Appendix Table A-2. Percent Distribution of Ever-married Women According to Total Number of Children Desired: WFS Countries

COUNTRY	NUMBER OF CHILDREN DESIRED											
	0	1	2	3	4	5	6	7	8	9+	Total	Mean
AFRICA												
Kenya	0.1	0.2	1.2	2.4	13.3	12.8	20.3	10.0	14.0	25.7	5,093	7.2
ASIA AND THE PACIFIC												
Bangladesh	0.5	1.4	13.2	24.6	32.7	13.7	7.0	2.2	2.4	2.4	4,438	4.1
Fiji	0.3	1.7	17.5	22.3	22.9	15.0	9.5	4.8	3.4	2.8	4,021	4.2
Indonesia[a]	0.3	3.2	14.3	22.0	23.3	16.0	9.6	4.7	3.1	3.6	7,475	4.2
Jordan	0.1	0.5	5.6	8.1	20.7	12.3	15.1	8.3	8.5	20.8	3,612	6.3
Korea, Rep. of	0.3	1.5	24.1	41.2	20.0	10.9	1.2	0.3	0.2	0.3	5,363	3.2
Malaysia	0.2	0.6	8.9	11.2	46.2	32.9[b]	—	—	—	—	6,094	4.4
Nepal	0.2	1.1	13.7	29.6	28.3	14.1	6.7	2.4	2.1	1.8	5,917	3.9
Pakistan	0	0	10	16	43	16	9	5[c]	—	—	4,803	4.3
Philippines	0.0	1.5	12.9	23.6	25.5	13.2	9.2	4.8	3.6	5.7	9,256	4.4
Sri Lanka	0.1	3.4	22.0	27.8	19.0	12.7	6.3	3.7	2.4	2.7	6,791	3.8
Thailand	0.0	3.1	20.7	25.3	27.2	12.5	6.6	2.1	0.9	1.1	3,622	3.7
Turkey[a]	0.7	2.3	40.2	31.0	17.0	4.0	2.1	0.6	0.3	1.8	3,970	3.0
LATIN AMERICA AND THE CARIBBEAN												
Colombia	0.6	3.3	22.7	25.4	19.2	9.4	6.6	2.5	2.8	7.0	3,278	4.1
Costa Rica	1.0	2.2	16.8	23.7	20.6	9.7	9.2	2.5	3.0	11.2	3,037	4.7
Dominican Republic	1.2	1.1	12.6	24.9	24.5	35.8[b]	—	—	—	—	2,199	4.7
Guyana	1.0	1.3	14.2	18.8	26.7	12.3	11.2	3.7	2.6	8.2	3,592	4.6
Jamaica	1.9	3.6	21.2	17.8	28.1	7.8	9.1	2.4	2.6	5.6	2,758	4.1
Mexico	0.9	2.0	19.3	21.8	21.8	9.8	9.6	2.9	3.4	8.5	6,111	4.4
Panama	0.7	1.5	15.5	27.1	24.5	10.0	9.6	3.1	2.4	5.6	3,199	4.2
Paraguay	0.1	2.4	10.3	18.7	20.0	14.3	11.2	5.2	5.9	11.9	2,973	5.1
Peru	1.2	3.9	22.5	21.7	23.6	7.6	8.6	1.2	2.1	3.4	5,528	3.8
Venezuela	0.4	2.6	19.3	23.4	25.4	8.7	9.7	2.2	2.6	5.7	2,685	4.2

[a] Refers to currently married women only.

[b] 5 or more children desired.

[c] 7 or more children desired.

Sources: WFS First Country Reports, Table 3.3.1 except Fiji and Sri Lanka (special tabulations); Indonesia (4.3.1B); Malaysia, Pakistan, Colombia, Costa Rica, the Dominican Republic, and Panama (3.4.1B); Nepal (2.4.1A); and Thailand (3.4.2A).

Appendix Table A-3. The Probability of Stating a Given Number of Children as the Desired Number by Whether the Actual Family Size Equals the Desired Number, Currently Married Women: Selected WFS Countries

COUNTRY	Desired Number of Children	PERCENT OF WOMEN Number Living Equals Number Desired	Number Living Not Equals Number Desired	Difference
Bangladesh	0	1.2	0.4	0.8
	1	4.2	0.8	3.4
	2	19.5	12.1	7.4
	3	35.9	22.7	13.2
	4	55.3	29.6	25.7
	5	41.4	10.6	30.8
	6	27.7	5.6	22.1
	7	23.3	1.4	21.9
	8	24.1	1.9	22.2
	9+	32.6	1.4	31.2
Indonesia	0	1.0	0.0	1.0
	1	8.8	1.8	7.0
	2	26.8	11.6	15.2
	3	41.3	18.7	22.6
	4	50.0	19.5	30.5
	5	53.7	12.3	41.4
	6	52.0	6.4	45.6
	7	49.6	2.9	46.7
	8	41.9	2.2	39.7
	9+	61.2	2.7	58.5
Jordan	0	0.8	0.0	0.8
	1	2.1	0.3	1.8
	2	10.0	5.1	4.9
	3	13.0	7.7	5.3
	4	25.5	20.1	5.4
	5	29.0	10.4	18.6
	6	36.4	12.5	23.9
	7	31.9	6.0	25.9
	8	32.5	7.7	24.8
	9	31.8	2.8	29.0
	10	41.7	7.0	34.7
	11	23.7	1.5	22.2
	12	27.3	1.8	25.5
	13+	55.2	4.0	51.2
Kenya	0	0.0	0.1	−0.1
	1	0.2	0.2	0.0
	2	2.4	1.0	1.4
	3	5.7	1.9	3.8
	4	15.0	13.1	1.9
	5	23.8	11.4	12.4
	6	26.9	19.6	7.3
	7	32.5	8.0	24.5
	8	35.5	13.3	22.2
	9	37.3	4.0	33.3
	10	36.2	12.6	24.4
	11+	65.9	8.6	57.3

(continued . . .)

Appendix Table A-3. The Probability of Stating a Given Number of Children as the Desired Number by Whether the Actual Family Size Equals the Desired Number, Currently Married Women: Selected WFS Countries

COUNTRY	Desired Number of Children	PERCENT OF WOMEN Number Living Equals Number Desired	Number Living Not Equals Number Desired	Difference
Korea, Rep. of	0	0.8	0.4	0.4
	1	3.1	1.2	1.9
	2	36.2	21.2	15.0
	3	51.8	38.8	13.0
	4	35.7	16.2	19.5
	5	25.9	9.1	16.8
	6	6.2	0.9	5.3
	7	1.2	0.3	0.9
	8	4.8	0.2	4.6
	9	0.0	0.1	−0.1
	10	0.0	0.2	−0.2
Mexico	0	1.7	0.8	0.9
	1	4.6	1.6	3.0
	2	27.3	17.9	9.4
	3	31.7	20.3	11.4
	4	39.5	19.4	20.1
	5	25.6	7.9	17.7
	6	25.5	8.2	17.3
	7	19.2	1.8	17.4
	8	12.3	2.9	9.4
	9	8.5	0.9	7.6
	10	9.0	2.9	6.1
	11	8.5	0.2	8.3
	12	16.2	2.5	13.7
	13+	25.9	0.1	25.8
Paraguay	0	0.7	0.0	0.7
	1	6.7	1.3	5.4
	2	13.1	9.6	3.9
	3	22.1	18.2	3.9
	4	27.4	19.3	8.1
	5	29.3	13.0	16.3
	6	27.3	10.2	17.1
	7	22.9	4.4	18.5
	8	22.8	4.9	17.9
	9	24.3	2.0	22.3
	10	24.5	3.5	21.0
	11+	58.82	3.7	55.12
Peru	0	0.80	1.24	−0.44
	1	11.80	2.68	9.12
	2	32.59	21.47	11.12
	3	31.86	20.71	11.15
	4	36.05	23.21	12.84
	5	15.35	6.92	8.43
	6	18.20	8.10	10.10
	7	5.87	0.97	4.90
	8	10.57	1.93	8.64
	9	3.77	0.35	3.42
	10+	15.34	2.95	12.39

(continued . . .)

Appendix Table A-3. The Probability of Stating a Given Number of Children as the Desired Number by Whether the Actual Family Size Equals the Desired Number, Currently Married Women: Selected WFS Countries

COUNTRY	Desired Number of Children	PERCENT OF WOMEN Number Living Equals Number Desired	Number Living Not Equals Number Desired	Difference
Philippines	0	0.0	0.0	0.0
	1	5.7	0.9	4.8
	2	28.3	10.2	18.1
	3	43.7	20.1	23.6
	4	55.2	20.8	34.4
	5	50.2	8.8	41.4
	6	46.8	5.3	41.5
	7	36.4	2.2	34.2
	8	32.4	2.1	30.3
	9	33.5	0.8	32.7
	10	31.6	1.4	30.2
	11	18.0	0.3	17.7
	12	25.8	0.9	24.9
	13+	40.0	0.2	39.8
Turkey	0	0.7	0.7	0.0
	1	3.8	2.0	1.8
	2	47.3	38.4	8.9
	3	40.5	28.8	11.7
	4	24.8	15.8	9.0
	5	8.7	3.5	5.2
	6	6.0	1.9	4.1
	7	1.4	0.6	0.8
	8	3.5	0.2	3.3
	9	0.0	0.2	−0.2
	10+	7.7	0.9	6.8
Venezuela	0	0.39	0.37	0.02
	1	6.55	1.60	4.95
	2	19.32	19.30	0.02
	3	36.36	21.28	15.08
	4	46.01	22.70	23.31
	5	38.97	6.10	32.87
	6	41.67	7.76	33.91
	7	23.53	1.21	22.32
	8	23.53	1.92	21.61
	9	24.59	0.53	24.06
	10+	50.65	3.22	47.43

Sources: WFS First Country Reports, Table 3.3.3A except for Indonesia (4.3.1B) and Kenya (3.3.3B).

*Appendix Table A-4. Mean Number of Children Desired by Number of Living Children (Including Any Current Pregnancy), Ever-married Women Aged 15-49: WFS Countries**

COUNTRY	NUMBER OF LIVING CHILDREN											Number of Cases
	0	1	2	3	4	5	6	7	8	9+	Total	
AFRICA												
Kenya	6.3	6.3	6.5	6.9	6.9	7.3	8.0	8.2	8.9	9.8	7.3	4,566
ASIA AND THE PACIFIC												
Bangladesh	3.5	3.5	3.7	3.9	4.2	4.7	4.9	5.0	5.6	6.4	4.1	4,386
Fiji	2.6	2.7	3.0	3.5	4.1	4.9	5.8	6.4	6.9	8.0	4.2	4,025
Indonesia[a]	2.9	3.2	3.5	4.0	4.8	5.6	6.0	6.4	7.3	8.4	4.1	7,466
Jordan	4.4	4.7	4.7	5.6	5.6	6.4	6.8	7.3	7.8	8.5	6.3	3,612
Korea, Rep. of	2.6	2.6	2.8	3.1	3.4	3.7	4.0	3.9	4.3	4.9	3.2	5,362
Malaysia	3.7	3.7	3.9	4.2	4.6	4.9[b]	—	—	—	—	4.4	6,250
Nepal	3.4	3.5	3.5	3.9	4.4	4.8	5.2	5.4	6.2	6.5	3.9	5,917
Pakistan	3.9	3.8	3.9	4.1	4.3	4.5	4.4	4.8[c]	—	—	4.2	4,803
Philippines	2.8	2.8	3.1	3.6	4.3	4.9	5.5	5.8	6.3	7.2	4.4	9,256
Sri Lanka	2.5	2.3	2.7	3.3	3.9	4.7	5.2	5.7	6.1	7.3	3.8	6,790
Thailand	3.0	2.8	3.2	3.6	4.0	4.3	4.7	4.6	4.9	4.9	3.7	3,629
Turkey[a]	2.8	2.7	2.7	2.9	3.1	3.4	3.5	4.0	3.8	4.5	3.0	3,970
LATIN AMERICA AND THE CARIBBEAN												
Colombia	2.7	2.8	3.2	3.8	4.2	4.7	4.9	5.6	5.9	6.7	4.1	3,278
Costa Rica[d]	2.8	3.0	3.5	4.3	4.8	5.4	6.1	6.9	6.9	7.9	4.7	3,037
Dominican Republic	3.5	3.5	3.8	4.4	4.9	6.1[b]	—	—	—	—	4.7	2,199
Mexico	3.3	3.3	3.4	4.1	4.6	5.0	5.4	5.7	5.8	5.6	4.4	6,111
Panama	3.1	3.0	3.4	3.8	4.4	4.9	5.5	5.5	5.8	6.7	4.2	3,199
Paraguay	3.3	3.4	3.8	4.6	5.2	6.1	6.9	7.9	8.1	9.8	5.1	2,973
Peru	3.2	2.8	3.1	3.7	4.1	4.2	4.6	4.8	4.8	5.0	3.8	5,418
Venezuela	2.8	2.9	3.3	3.8	4.6	5.0	5.4	5.9	6.6	7.9	4.2	2,683

* Not available for Jamaica or Guyana.

[a] Data available only for currently married women.

[b] Five or more living children.

[c] Seven or more living children.

[d] Ever-married women aged 20-49.

Sources: WFS First Country Reports, Table 3.3.4B except for Fiji and Sri Lanka (special tabulations); Indonesia (4.3.2A); Malaysia, Pakistan, Colombia, Costa Rica, and the Dominican Republic (3.4.3B); Nepal (3.4.3A); and Thailand (3.4.4A).

Appendix Table A-5. Mean Desired Family Size and Desire for No More Children by Number of Living Children, Ethnic Origin, and Religious Affiliation, Currently Married Women: Selected WFS Countries

COUNTRY	DESIRED FAMILY SIZE 0	1	2	3	4	5+	Mean	Total Women	Adjusted Mean[a]
AFRICA									
Kenya									
Ethnic Group (3.3.7G)									
Kikuyu	5.7	5.8	5.8	5.8	6.3	7.4	7.0	1,085	
Luo	5.4	5.6	5.5	6.3	6.6	7.8	6.5	938	
Lukya	6.8	6.1	6.4	6.9	6.7	8.1	7.1	723	
Kamba	8.4	6.0	7.0	6.9	7.1	7.7	7.3	556	
Kisii	6.5	6.8	6.4	7.3	7.5	9.3	8.1	319	
Meru	-5.6-		6.4	5.1	6.8	7.4	6.8	271	
Mijikenda	8.1	8.8	8.7	8.1	9.0	10.1	9.0	278	
Other	6.6	7.5	7.5	8.8	8.0	9.2	8.4	498	
Religion[b] (3.3.7D)									
Catholic	6.1	6.0	6.3	6.8	7.0	8.1	7.1	1,687	
Protestant	6.0	5.9	6.0	6.4	6.5	8.0	7.0	2,444	
Moslem	8.4	7.8	8.3	7.9	7.8	9.3	8.4	253	
ASIA AND THE PACIFIC									
Fiji									
Religion (G26)									
Methodist	2.4	2.6	3.2	3.8	4.3	6.0	4.1	1,270	
Catholic	2.6	2.6	2.9	3.5	5.0	6.2	4.4	309	
Hindu	2.8	2.8	2.9	3.4	4.0	6.0	4.2	1,868	
Moslem	2.4	2.5	3.1	3.6	4.1	6.4	4.4	327	
Other	2.5	2.6	2.6	3.4	4.1	6.1	3.9	195	
Jordan									
Religion (3.3.7C)									
Moslem	-4.6-		4.7	5.7	5.7	7.6	6.4	3,258	
Catholic	-3.0-		3.0	5.0	4.6	5.6	4.5	73	
Other	-3.2-		3.0	3.5	3.8	5.0	4.2	127	
Korea, Rep. of									
Religion[b] (3.3.7C)									
None	2.5	2.6	2.8	3.1	3.5	4.0	3.3	3,102	
Buddhist	2.7	2.6	2.8	3.1	3.4	3.7	3.2	1,167	
Christian	2.5	2.4	2.7	3.2	3.5	3.7	3.0	665	
Malaysia									
Ethnic Group[b] (3.4.6B)									
Malay	3.8	4.0	4.1	4.5	5.0	5.4	4.7	3,202	
Chinese	3.4	3.4	3.5	4.0	4.3	4.5	4.1	1,969	
Indian	3.4	3.0	3.4	3.5	3.8	3.8	3.6	541	
Religion (3.4.6D)									
Muslim	3.8	4.0	4.1	4.5	5.0	5.4	4.7	3,210	
Christian	2.6	2.4	3.1	4.0	3.4	4.0	3.4	157	
Hindu	3.6	3.0	3.3	3.4	3.8	3.7	3.5	455	
Buddhist	3.3	3.4	3.5	4.0	4.4	4.5	4.1	1,380	
Other	3.5	3.5	3.6	4.1	4.2	4.6	4.1	536	
Sri Lanka									
Religion[b] (3.4.7D)									
Buddhist	2.5	2.4	2.6	3.3	4.0	5.5	3.9	4,089	(3.7)
Hindu[c]	2.5	2.5	2.8	3.4	4.0	5.5	3.8	1,161	(3.8)
Muslim	2.8	2.6	3.0	3.3	4.1	6.0	4.2	422	(3.7)
Christian	2.6	2.0	2.5	3.2	3.6	5.0	3.4	474	(3.4)

(continued . . .)

Appendix Table A-5. Mean Desired Family Size and Desire for No More Children by Number of Living Children, Ethnic Origin, and Religious Affiliation, Currently Married Women: Selected WFS Countries

COUNTRY	DESIRED FAMILY SIZE 0	1	2	3	4	5+	Mean	Total Women	Adjusted Mean[a]
LATIN AMERICA AND THE CARIBBEAN									
Guyana									
Ethnic Group (3.3.3D)									
African[c]	3.9	3.9	3.8	4.3	4.7	6.6	4.8	1,076	(4.8)
Indian	3.1	2.9	3.4	4.0	4.5	6.1	4.6	1,753	(4.3)
Other	3.6	3.7	3.6	4.2	4.9	6.1	4.6	373	(4.6)
Panama									
Religion (3.4.6C)									
Catholic[c,d]	3.2	3.1	3.4	3.8	4.4	5.9	4.3	1,204	(4.3)
Catholic[e]	3.0	3.1	3.5	3.8	4.4	5.3	4.3	1,337	(4.1)
Non-Catholic	2.8	2.9	3.5	3.8	4.7	6.2	4.5	179	(4.3)

[a] Means were adjusted for the differences in the number of living children.

[b] "Other" group of less than 50 cases was excluded.

[c] Used as the standard distribution for adjustment.

[d] Refers to Practicing Catholics.

[e] Refers to Non-Practicing Catholics.

Sources: WFS First Country Reports. Table references are given in parentheses under each country.

Appendix Table A-6. Percent of Currently Married "Fecund" Women Who Want No More Children by Current Age: WFS Countries

COUNTRY	AGE 15-19	20-24	25-29	30-34	35-39	40-44	45+	Total	Number of Cases
AFRICA									
Kenya	1.7	4.1	11.7	19.2	25.4	39.6	41.6	16.6	5,133
ASIA AND THE PACIFIC									
Bangladesh	34.4	53.1	65.3	79.3	86.3	90.6	93.6	62.8	5,106
Fiji	9.9	20.4	39.3	58.4	72.5	84.3	88.8	49.5	4,159
Indonesia	6.3	16.2	32.9	50.7	61.8	74.4	84.0	38.8	6,556
Jordan	7.0	15.4	32.2	50.9	66.0	77.2	75.6	41.7	3,069
Korea, Rep. of	5.5	24.4	54.5	83.6	92.3	97.2	97.4	71.6	4,385
Malaysia	4.0	11.2	26.7	48.2	64.3	77.7	78.6	42.7	4,917
Nepal	1.8	11.4	27.2	41.3	55.1	66.2	71.4	29.6	4,886
Pakistan[a]	4	18	39	61	74	84	93	49	4,618
Philippines	11.1	25.9	42.3	56.9	71.3	76.2	79.3	54.3	7,893
Sri Lanka	14.1	29.9	46.5	68.4	80.1	85.9	94.2	61.4	5,318
Thailand[b]	15.7	33.8	49.1	68.5	77.7	86.2	89.9	56.9	2,604
Turkey	10.4	29.6	49.4	69.2	84.0	91.6	90.4	51.1	3,742
LATIN AMERICA AND THE CARIBBEAN									
Colombia	32.0	38.0	54.0	72.0	78.0	80.8	83.0	61.0	2,667
Costa Rica[c]	—	21.1	38.2	54.6	72.0	78.8	78.0	52.0	2,446
Dominican Republic	19.3	30.9	45.5	53.2	59.0	63.6	68.5	44.7	1,456
Guyana	22.8	26.8	39.8	62.1	74.5	82.3	86.1	51.1	3,041
Jamaica	23.1	28.8	35.9	48.6	53.7	53.3	66.5	41.5	2,131
Mexico	21.4	31.6	54.6	68.0	78.9	83.8	81.6	57.1	4,883
Panama[c]	—	28.2	55.2	70.9	78.8	83.7	87.9	63.0	2,525
Paraguay	12.2	13.7	17.6	29.5	48.3	58.3	64.3	32.3	2,373
Peru	30.8	41.5	53.9	68.0	75.2	79.3	80.1	61.4	4,530
Venezuela[d]	22.6	33.0	48.7	67.9	78.0	85.9	—	55.0	2,205

[a] Includes infecund women.

[b] Excludes pregnant women.

[c] Excludes women under 20 years of age.

[d] Women over 45 included in a 40+ category.

Sources: WFS First Country Reports, Table 3.1.1 except Fiji (special tabulations), Indonesia (4.1.1A), and Thailand (3.1.1A).

Appendix Table A-7. Percent of Currently Married "Fecund" Women Who Want No More Children by Ethnic Origin and Religious Affiliation: Selected WFS Countries

COUNTRY	Percent	Total Women
FIJI		
Religion		
Methodist	41.1	1,332
Catholic	32.1	330
Hindu	56.1	1,946
Moslem	59.1	342
Other	53.3	210
GUYANA		
Ethnic Group		
All Ethnic	51.1	3,041
Indian	59.4	1,672
Non-Indian	40.9	1,369
JORDAN		
Religion		
Moslem	40.2	2,893
Catholic	58.0	66
Other	71.0	11
KENYA		
Ethnic Group		
Kikihu	27.4	1,186
Luo	12.3	1,024
Luhya	18.2	797
Kamba	20.0	535
Kisu	9.2	344
Meru	15.0	314
Mijitenda	6.4	323
Other	9.4	626
Religion		
Catholic	15.5	1,857
Protestant	19.5	2,655
Muslim	9.8	278
KOREA, REP. OF		
Religion		
None	69.7	2,752
Buddhist	76.4	969
Christian	71.5	603
MALAYSIA		
Ethnic Group		
Malay	35.7	2,831
Chinese	49.8	1,651
Indian	61.1	411
Religion		
Muslim	35.7	2,835
Christian	58.1	117
Hindu	61.5	348
Buddhist	49.6	1,157
Other	50.1	457
PANAMA		
Religion		
Catholic (Practicing)	61.0	1,113
Catholic (Non-Practicing)	66.1	1,241
Non-Catholic	53.8	171
SRI LANKA		
Religion		
Buddhist	62.6	2,831
Hindu**	57.1	1,011
Muslim	55.9	363
Christian	66.6	401

* "Other" group of less than 50 cases was excluded.

** Used as the standard distribution for adjustment.

Sources: WFS First Country Reports, Table 3.1.3D except Fiji (G-4); Guyana (3.1.3E); Kenya (3.1.3G (ethnic group)); Korea and Panama (3.1.3C); and Malaysia (3.1.3B)

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